

HOUGHTON MIFFLIN HARCOURT



Math Expressions

Volume 2



$$3 + 8 = \square$$

$$8 + \square = 15$$

Animals at the Zoo

koalas	2
zebras	3
parrots	6



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Math Expressions

Volume 2

Developed by
The Children's Math Worlds Research Project

PROJECT DIRECTOR AND AUTHOR

Dr. Karen C. Fuson



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VOLUME 2 CONTENTS

Unit 6 Comparisons and Data Formats

Comparisons with Graphs

1 Simple Comparisons and Graphs	203
 FAMILY LETTER	205
2 Construct Picture Graphs	207
3 Quick Graphs and Comparisons	209
Extra Practice	209
4 Graphs with Multiple Rows	211
Extra Practice	212
5 Data Collection and Graphing	*
6 Student-Generated Graphs	213
Going Further	214

Comparisons with Tables and Stories

7 From Graphs to Tables	215
8 Story Problems with Comparisons	217
9 Comparison Story Problem Strategies	219
Going Further	220

Comparisons with Measurement Units

10 Measurement with Inches	221
11 Measurement Tables	223
Going Further	225

Comparisons with Shapes and Patterns

12 Comparison and Rotation of Shapes	227
Extra Practice	228
13 Shape Combinations	229
Triangle Grid	229
14 Congruence and Solid Shapes	231
Small Shapes	231
Going Further	233
15 Exploration of Solid Shapes	235
16 Exploration of Patterns	239
 UNIT 6 Test	241

Unit 7 Fractions, Circle Graphs, and Clocks

Halves and Doubles

1 Investigate Doubles	245
 FAMILY LETTER	245
2 Problem Solve with Doubles	247
Going Further	247
3 The Meaning of Half	249
Extra Practice	249
4 Half of a Shape and Symmetry	251
Symmetrical Shapes	251
Going Further	253

Fourths, Halves, and other Fractions

5 Fraction Notation and Fourths	*
6 Halves and Fourths of a Dollar	255
Going Further	256
7 Practice with Fractions	257
Fraction Strips	257

Simple Circle Graphs

8 Introduction to Circle Graphs and Probability	259
9 Comparisons with Circle Graphs	261
Going Further	263

Clocks and Calendars

10 Clocks and Units of Time	265
Student Clock	265
11 Time and Ordinal Numbers	*
12 Tell Time to the Half-Hour	267
Digital and Analog Clocks	267
Going Further	268
13 Consolidation: Clocks and Graphs	269
Extra Practice	271
14 Calendars and Units of Time	273
15 Use Mathematical Processes	275
 UNIT 7 Test	277

Unit 8 Money and 2-Digit Addition

2-Digit Coin Combinations

1 Dimes, Nickels, and Pennies 281

Extra Practice 282



FAMILY LETTER 283

2 Find Equivalent Coins and Values 285

Going Further 285

3 Make Coin Conversions 287

Extra Practice 288

2-Digit Addition

4 Explore Multi-Digit Addition 289

Going Further 290



FAMILY LETTER 291

5 Student Methods: 2-Digit Addition 293

6 Addition of Tens and Ones *

7 Discuss Solution Methods:
2-Digit Addition 295

8 Practice 2-Digit Addition *

2-Digit Addition in Real-Life Situations

9 2-Digit Story Problems 297

10 Real World Problems: 2-Digit Addition . . 299

Fruit and Vegetable Stand 299

Going Further 300

11 2-Digit Addition: Unknown Partners . . . 301

Extra Practice 301

12 Unknown Partners of a Dollar 303

Going Further 304

13 Make Change for a Dollar 305

Dollar Bills 305

Extra Practice 307

UNIT 8 Test 309

Unit 9 Analyze Story Problems

Relate Known and Unknown Quantities

1 Teen Problems with Various Unknowns . 313



FAMILY LETTER 315

2 Story Problems to 100 317

Going Further 317

Category Problems

3 Introduction to Category Problems 319

4 Student-Generated Category Problems . 321

5 Practice with Category Problems 323

Going Further 323

Multiple-Step Story Problems

6 Multiple-Step Addition Problems 325

Going Further 325

7 Stories with Mixed Operations 327

Extra Practice 327

8 Multiple-Step Problems with
Greater Numbers 329

Extra Practice 329

9 More Practice: Multiple-Step Problems . 331

Story Problems with Extra Information

10 Find Essential Information 333

Extra Practice 333

11 Practice with Extra Information *

12 Consolidation: Story Problem Festival . . . *

13 Use Mathematical Processes 335



UNIT 9 Test 337

Unit 10 Measurement

Measurement with Nonstandard Units and Inches

1 Measurement: Nonstandard Units
and Rounding 341

Going Further 341


FAMILY LETTER 343
2 Exploration with Inches *

3 Use an Inch Ruler **345**

 Extra Practice **346**
4 Measure Shapes in Inches **347**
Measurement with Centimeters
5 Use a Centimeter Ruler **349**

 Extra Practice **351**
6 Measure Shapes in Centimeters **353**

 Going Further **355**
7 Comparative Measurements:

 Centimeters and Inches **357**

 Going Further **358**
Weight, Capacity, and Estimation
8 Weight and Capacity **359**
9 Estimate Quantities and Sums **361**
10 Estimate Weight and Capacity **363**
UNIT 10 Test **365**

Extension Lessons
1 Identify and Represent Numbers **369**
2 Use Number Lines to Add and Subtract . **371**
3 2-Digit Subtraction **373**
4 Tally Charts and Line Plots **375**
5 Represent Multiplication **377**

Glossary SI

Class Activity
Vocabulary

compare

more

fewer

1. Compare Mara's crayons with Todd's.

Complete the sentences below.

Ring the word **more** or **fewer**.

 Mara	
 Todd	

Mara has **more fewer** apples than Todd.Todd has **more fewer** apples than Mara.**2.** Each ant gets 1 crumb.How many more crumbs are needed? **3.** Draw circles on the graph.

Crumbs



Ants

**4.** Each bee gets 1 flower. How many extra flowers are there? **5.** Ring the extra flowers.

Flowers



Bees



6. On the Back Lee has 4 blocks. Ben has 2 more blocks than Lee.
Draw Lee's and Ben's blocks.

Name _____

The central area of the page is a large rectangle with a thick blue border. Inside this border, there is a lighter blue rectangular area. Within this lighter area, there are several rows of faint, illegible text and graphics. It appears to be a template for a student's work, possibly a worksheet or a project page. The text is too blurry to read, but it seems to be organized into sections. There are some small, dark, circular shapes that might be icons or part of a logo. The overall layout is clean and professional, typical of a textbook or a workbook.

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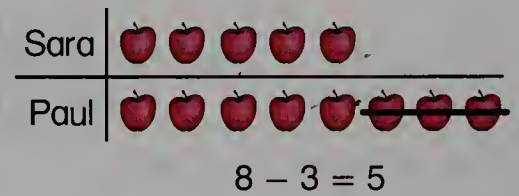
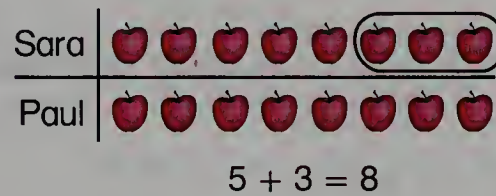


Dear Family:

In the current math unit, your child is learning to compare data. To begin, children read and construct picture graphs that contain only two rows of symbols, and they learn to make comparative statements. For the graph below, they make statements such as *Paul has 3 more apples than Sara*, and *Sara has 3 fewer apples than Paul*.



Children learn that they can make the quantities on the graph equal if they add to one group or subtract from the other. They use equations to show their method.



Then children begin working with picture graphs that contain three or four rows of symbols. When children are asked to compare only two quantities out of three or four, they must select necessary information and disregard information that is unnecessary. Finally, children record and compare quantities using tables.

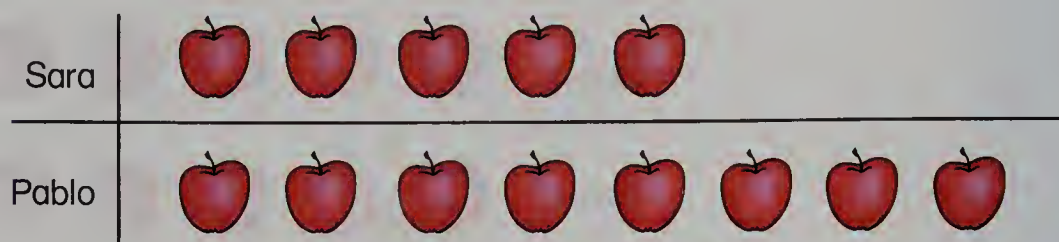
As your child does the homework, ask him or her to tell you about the picture graphs and tables.

Sincerely,
Your child's teacher

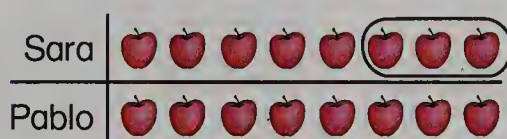


Estimada familia:

En esta unidad de matemáticas, su niño está aprendiendo a comparar datos. Para empezar, los niños leen y hacen gráficas ilustradas que tienen dos filas de símbolos y aprenden a formular enunciados comparativos. Para la gráfica de abajo, hacen enunciados como *Pablo tiene 3 manzanas más que Sara y Sara tiene 3 manzanas menos que Pablo*.



Los niños aprenden que pueden hacer que las cantidades de la gráfica sean iguales si suman a un grupo o restan al otro. Usan ecuaciones para mostrar su método.



$$5 + 3 = 8$$



$$8 - 3 = 5$$

Luego, los niños trabajan con gráficas ilustradas que tienen tres o cuatro filas de símbolos. Cuando se les pide que comparen solamente dos cantidades de tres o cuatro, tienen que seleccionar la información necesaria y descartar la información que no lo es. Por último, los niños anotan y comparan las cantidades utilizando tablas.

A medida que su niño hace la tarea, pídale que le hable sobre las gráficas ilustradas y las tablas.

Atentamente,
El maestro de su niño



Class Activity

Vocabulary

picture graph
more
fewer

1. Make a **picture graph** about the shapes.



Circles									
Triangles									

2. Complete the sentences. Ring the word **more** or **fewer**.

There are **more fewer** circles than triangles.

There are **more fewer** triangles than circles.

3. Make a picture graph about the food.



Apples									
Carrots									

4. Complete the sentences. Ring the word **more** or **fewer**.

There are **more fewer** apples than carrots.

There are **more fewer** carrots than apples.



5. **On the Back** Mia has 6 blocks. Jamal has 2 fewer blocks.

Draw Mia's and Jamal's blocks.

Name _____

A large blue rectangular frame with a double-line border. Inside the frame is a faint, mirrored image of a page. The image shows a title at the top, followed by several paragraphs of text, and a graph at the bottom. The text and graph are not legible due to the mirroring and fading.

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Extra Practice

Vocabulary

graph

more

fewer

1. Count the cats and dogs.

Draw circles on the **graph** to show the number of dogs and cats.



Dogs									
Cats									

2. Complete the sentences. Ring the word **more** or **fewer**.

There are **more fewer** cats than dogs.

There are **more fewer** dogs than cats.

➔ 3. **On the Back** Draw 8 triangles in a row. Draw 5 circles in a row. Write the word **more** next to the group that has more.

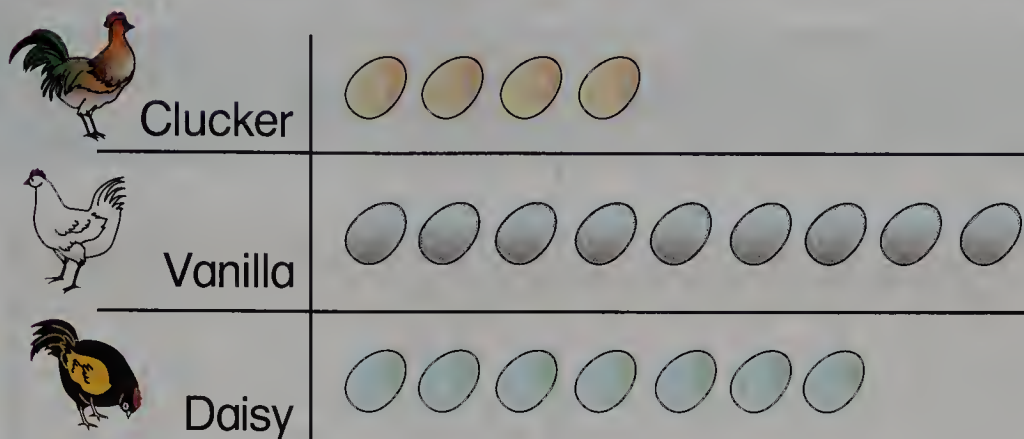
Name _____



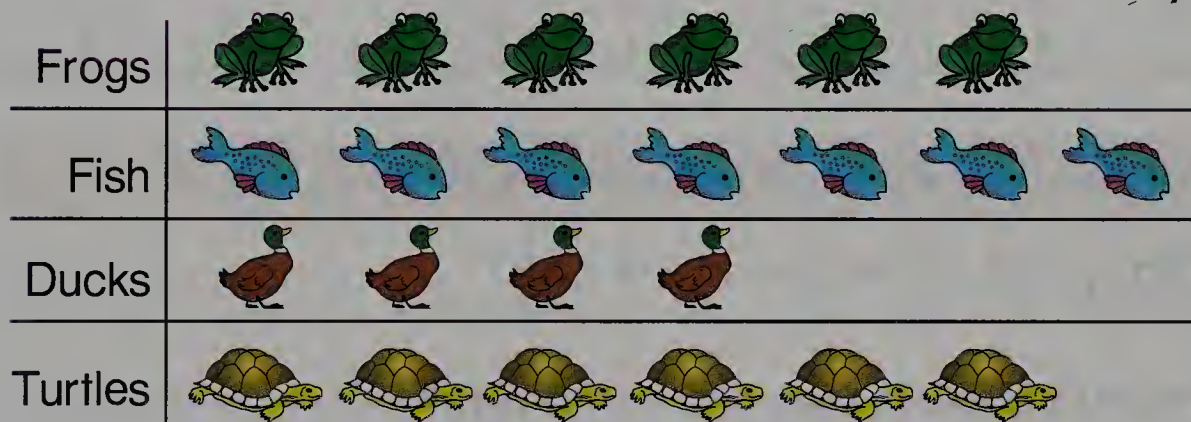
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Class Activity

Eggs Laid This Month



Animals in the Pond



Hot Dogs Sold at the Fair





Extra Practice

Vocabulary

more

most

fewer

fewest

1. Draw circles to show how many of each color.

Colors in the Bag										
Red										
Yellow										
Blue										

Use the graph to answer the questions below.

2. How many red cubes are in the bag? _____

3. How many yellow cubes are in the bag? _____

4. How many blue cubes are in the bag? _____

5. Are there **more** red cubes than yellow cubes? _____

6. Are there **fewer** red cubes than blue cubes? _____

7. There are the **most** of which color? _____

8. There are the **fewest** of which color? _____

1. Work together in a group. Use the empty graph. Show the number of letters in your first names.

Number of Letters in Our Names								
Kristy	○	○	○	○	○	○		
Jeff	○	○	○	○				
Samantha	○	○	○	○	○	○	○	○
Rolando	○	○	○	○	○	○	○	

Number of Letters in Our Names									

2. Explain how the graph makes it easier to **compare** the number of letters in each name.

Going Further

Vocabulary

compare
is less than (<)
is greater than (>)

You can use symbols when you

compare numbers.

A l i c e

5 letters

J o n a t h a n

8 letters

5 **is less than** 8

$$5 < 8$$

P a t r i c k

7 letters

A n g e l a

6 letters

7 **is greater than** 6

$$7 > 6$$

Use > or < to compare the numbers.

1. 4 ○ 9

2. 12 ○ 8

3. 16 ○ 6

4. 5 ○ 2

5. 15 ○ 11

6. 14 ○ 15

7. 9 ○ 10

8. 13 ○ 10

9. 12 ○ 21

10. Explain how you remember what each symbol means.

Class Activity
Vocabulary

table

graph

1. Make a **table** from the class favorite season **graph**.

Favorite Season Table

Season	Number
Fall	
Winter	
Spring	
Summer	

2. Make a table from the picture graph below.

Picture Graph

Horns	   
Violins	    
Drums	  
Guitars	    

Table

Instruments	Number

- ➡ 3. **On the Back** Write and answer a question using the favorite season table. Then write and answer a question using the musical instruments table.

Name _____

Handwriting practice lines consisting of multiple sets of three horizontal lines (top solid, middle dashed, bottom solid) for letter formation.

Class Activity
Vocabulary

more

fewer

Solve the story problems.
Use the pictures to help you.

1. Emily made 6 pancakes.
 Luis made 4 **more** than
 Emily. How many pancakes
 did Luis make?



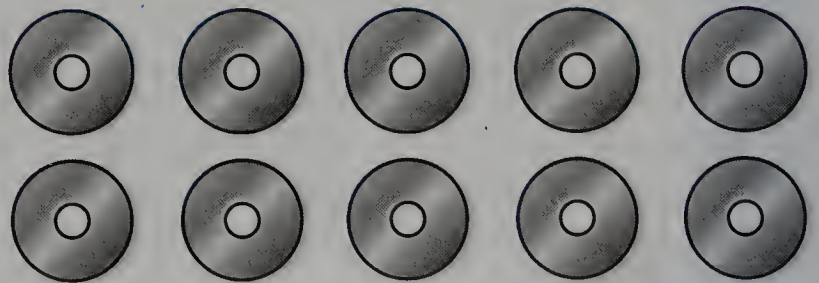
label

2. Ana wrapped 7 gifts.
 Dan wrapped 5 gifts.
 How many **fewer** gifts did
 Dan wrap than Ana?



label

3. Tessa has 10 CDs. Noah has
 3 fewer than Tessa. How
 many CDs does Noah have?



label

-  **4. On the Back** Draw 9 squares. Draw 3 fewer circles.

Name _____



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Vocabulary

more
fewer

Solve the story problems.
Use drawings and numbers.

1. Cory's cat has 8 kittens.
Eva's cat has 3 kittens.
How many more kittens does
Cory's cat have than Eva's?

more

_____ label

-
2. There were 16 bicycles here
yesterday. There are 7 **fewer**
bicycles here today. How many
bicycles are here today?

_____ label

-
3. Ms. Perez has 15 horses.
Mr. Drew has 9 horses.
How many **more** horses does
Ms. Perez have than Mr. Drew?

more

_____ label

Going Further

Vocabulary

table

Complete the **table**.

Then use the table to answer the question.

1.

Bicycles	1	2	3	4	5	6
Wheels	2	4	6	8		



How many wheels are on 6 bicycles?

label

2.

Vases	1	2	3	4	5
Flowers	3	6	9		



How many flowers are in 5 vases?

label

3.

People	1	2	3	4	5	6	7
Toes	10	20	30	40			



How many toes do 7 people have?

label

Class Activity

Vocabulary

measure

longest

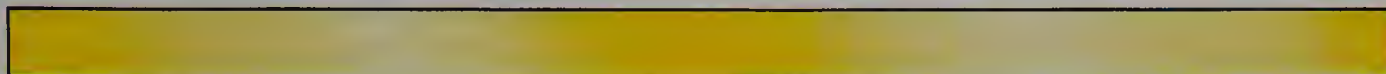
long

shortest

inches

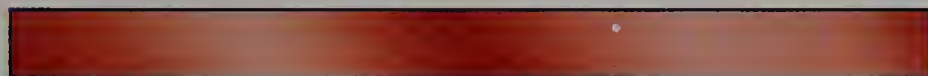
Measure the ribbons with Stair Steps.

1. Yellow ribbon

How **long**? _____ **inches**

2. Red ribbon

How long? _____ inches



3. Blue ribbon

How long? _____ inches

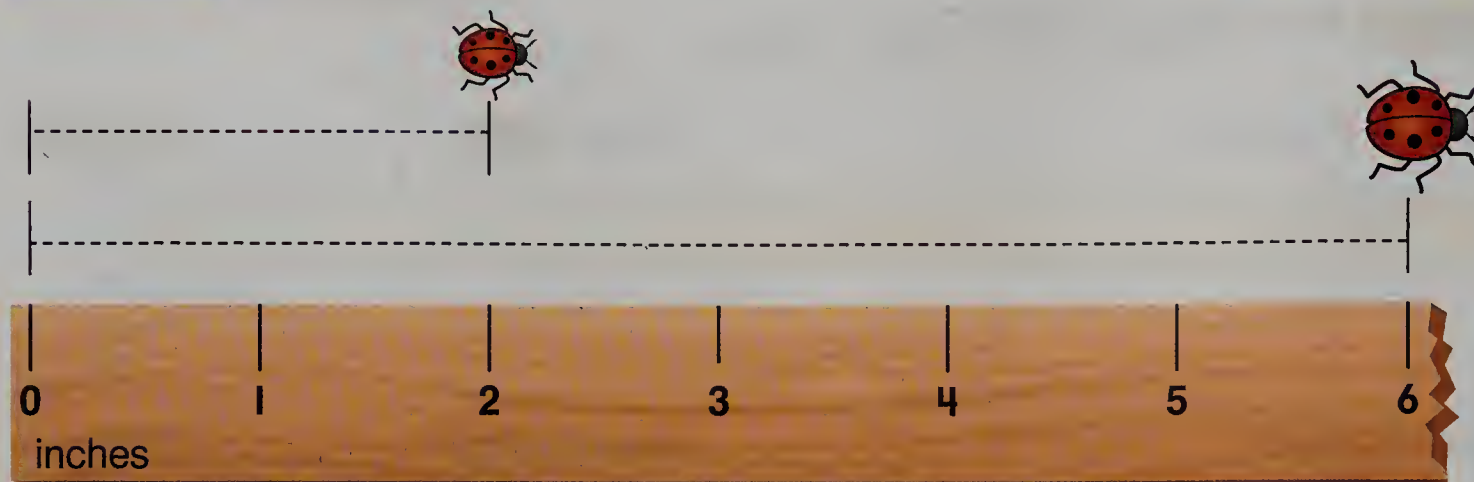


4. Green ribbon

How long? _____ inches

5. What color ribbon is the **longest**? _____6. What color ribbon is the **shortest**? _____

Class Activity
Vocabulary
 measure
 inches

Measure how far each ladybug walked.


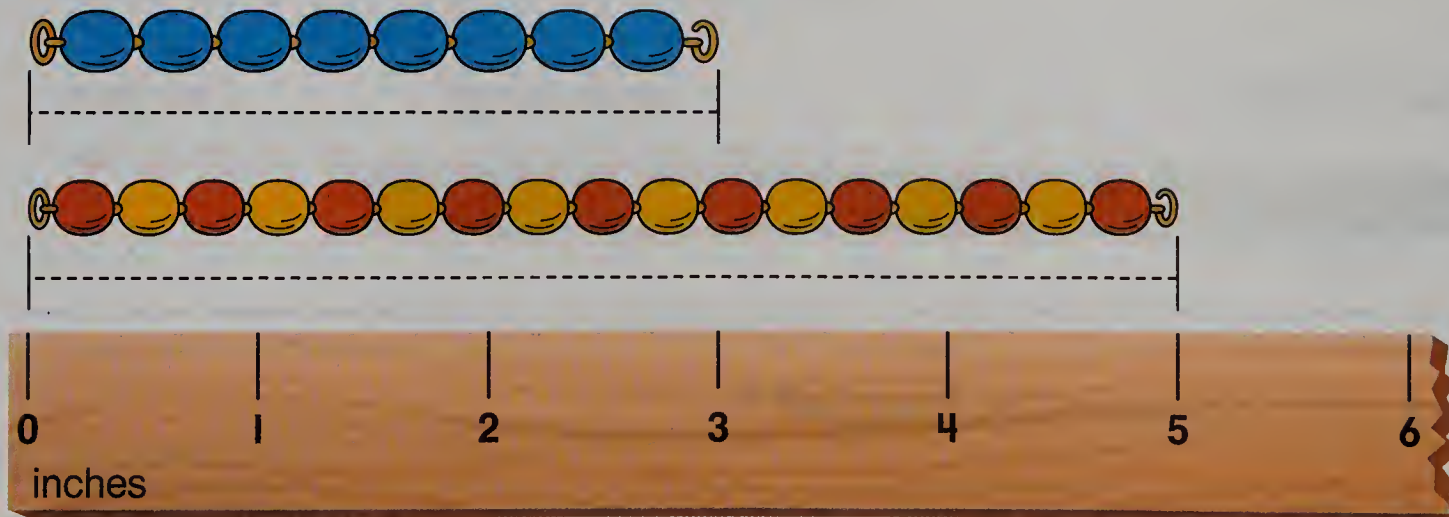
1. Little ladybug

How far? _____ **inches**

2. Big ladybug

How far? _____ inches

Measure the bracelets.



3. Short bracelet

How long? _____ inches

4. Long bracelet

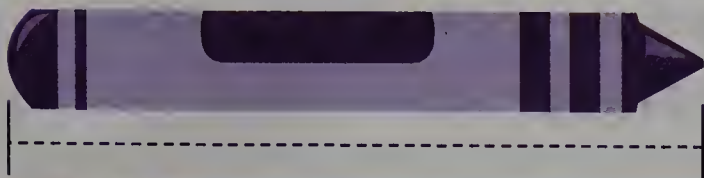
How long? _____ inches

Class Activity
Vocabulary

measure	shorter
table	longer
length	

1. **Measure** the school supplies.

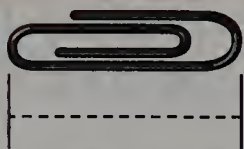
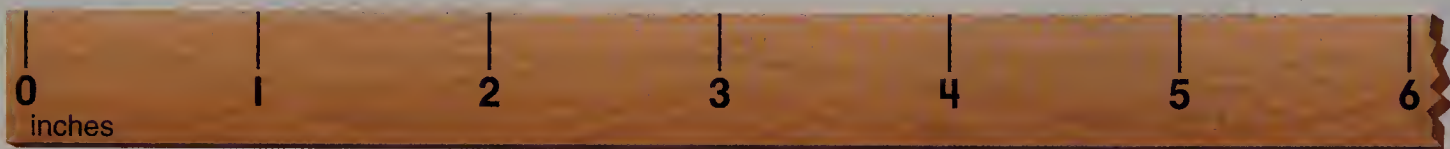
Make a **table** of **lengths**.



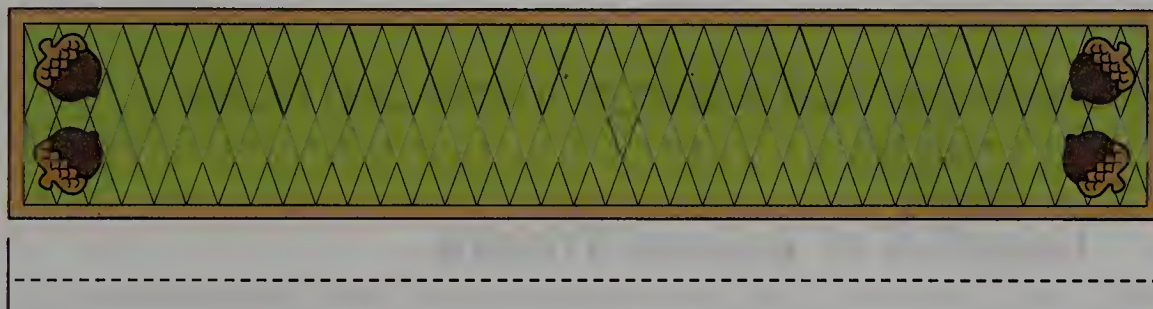
Crayon



Pencil



Paper Clip



Bookmark

Object	Length
Crayon	
Pencil	
Paper Clip	
Bookmark	

2. How much **shorter** is the crayon than the pencil?

3. How much **longer** is the bookmark than the paper clip?

Class Activity
Vocabulary

longer
shorter

Ask questions about each table.

Use the words **longer** and **shorter**.

1. Mrs. Garcia's class measured some fruits and made this table.

Lengths of Fruits

Fruit		Length
	Banana	7 inches
	Pineapple	12 inches
	Mango	5 inches
	Watermelon	14 inches

2. The Novak family measured some animal tracks and made this table.

Lengths of Animal Tracks

Animal		Length of Track
	Squirrel	2 inches
	Deer	4 inches
	Raccoon	3 inches
	Moose	6 inches

Going Further

Vocabulary

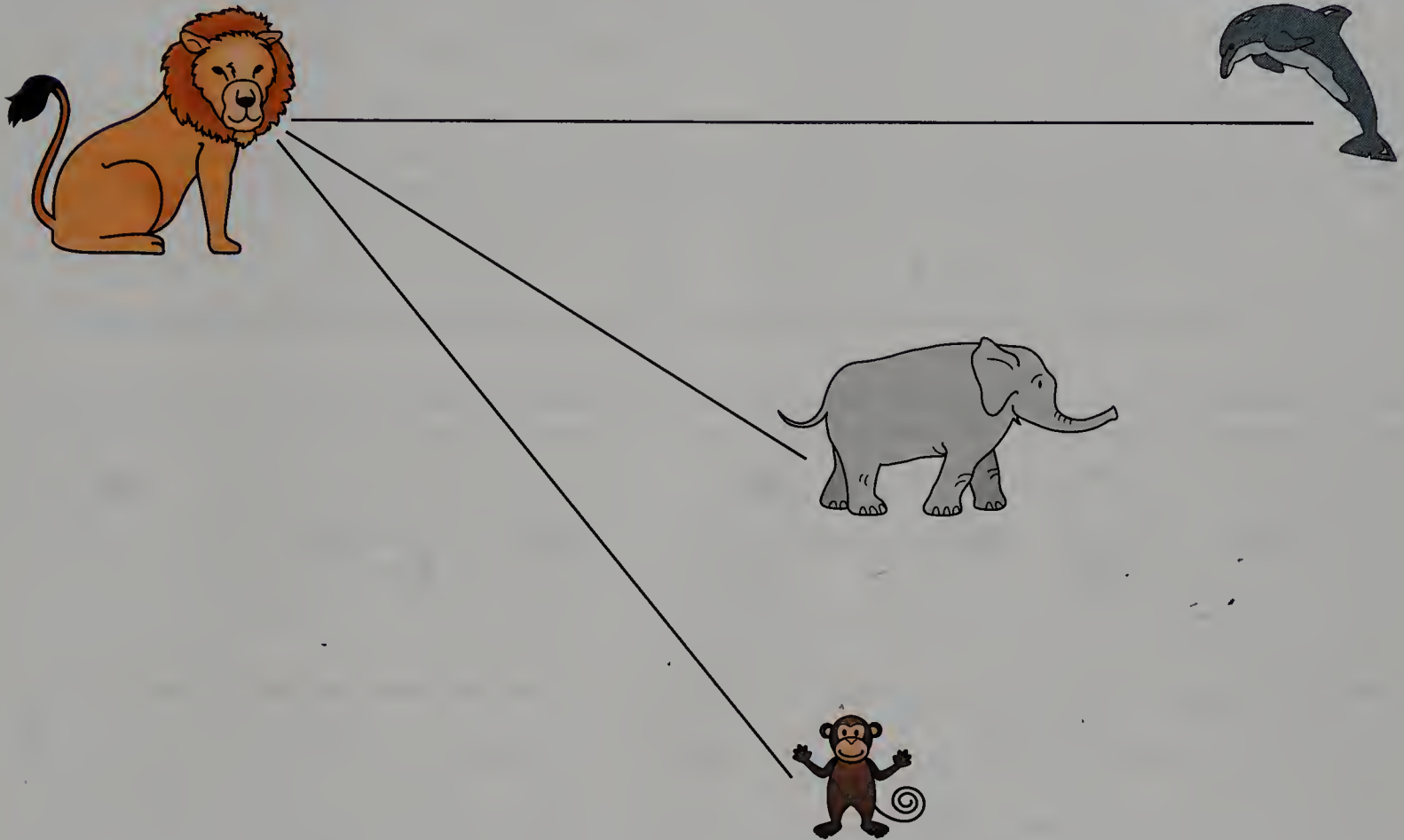
measure

table

closer

1. **Measure** the lines in inches.

Make a **table** of distances:



Distances Between Animals

Animals	Distances
Lion to Elephant	
Lion to Dolphin	
Lion to Monkey	

➡ 2. **On the Back** Is the elephant or the monkey **closer** to the lion? Use words and numbers to explain.

Name _____

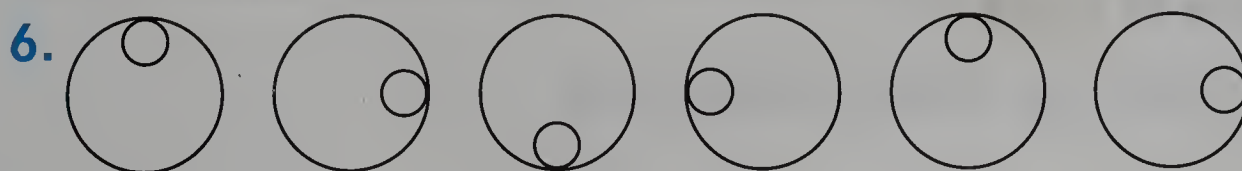
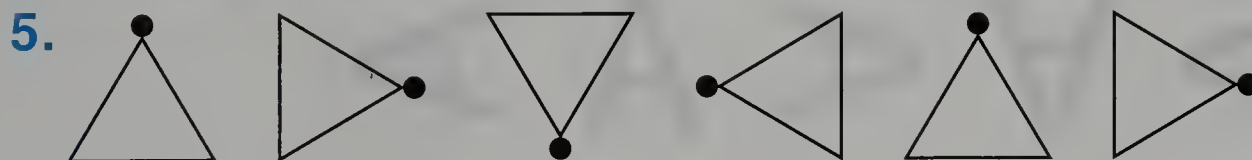
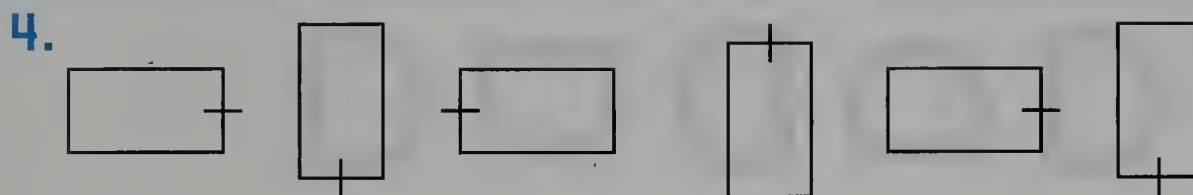
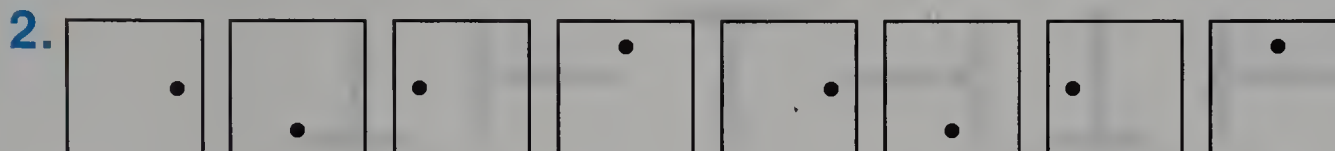
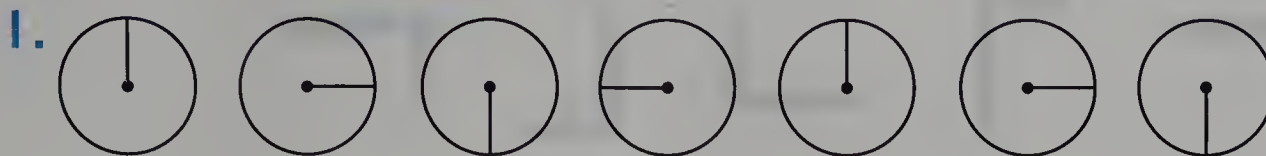
Handwriting practice lines consisting of solid top and bottom lines with a dashed middle line. There are 10 sets of these lines across the page.

Class Activity

Vocabulary

shape

Draw the next **shape** in each row.





Extra Practice

Vocabulary

turn

Draw the next letter in each row.

1. L L L L L L L

2. T T T T T T T

3. H H H H H H H

4. D D D D D D D

5. A A A A A A A

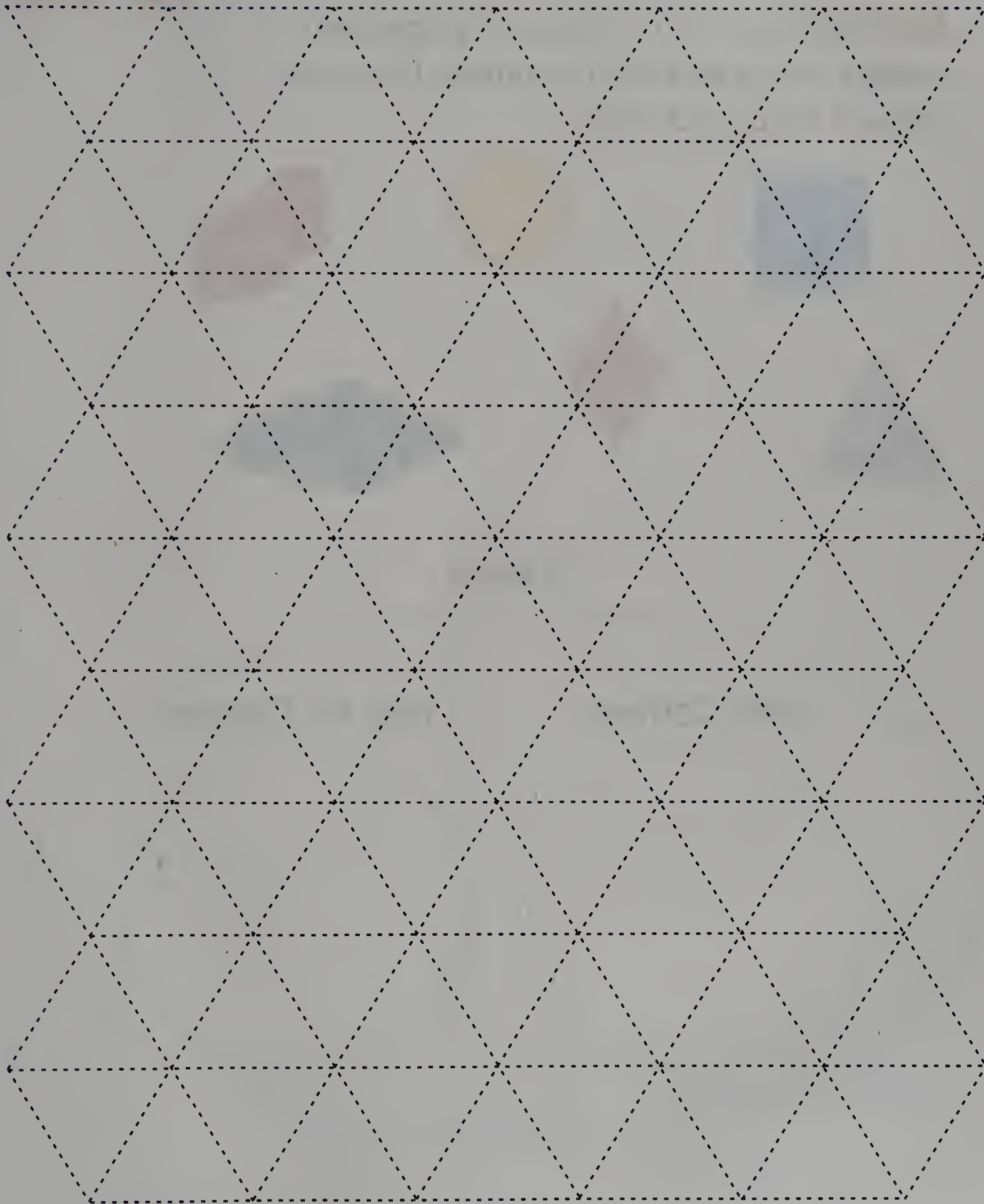
6. Trace the letter P. **Turn** it.

Draw what it looks like. Draw 5 more turns.

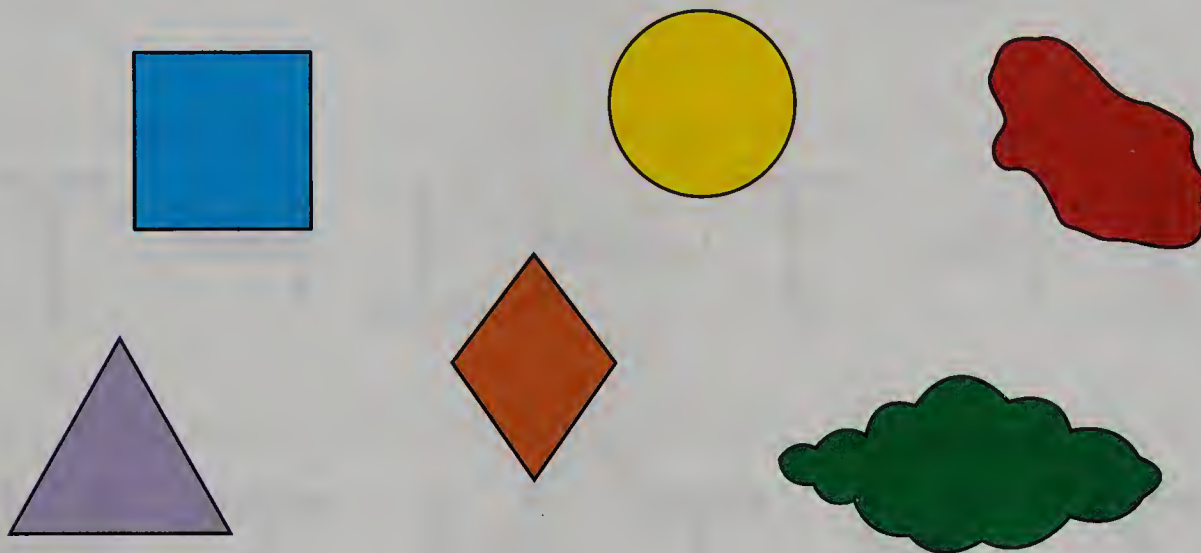
P



Class Activity



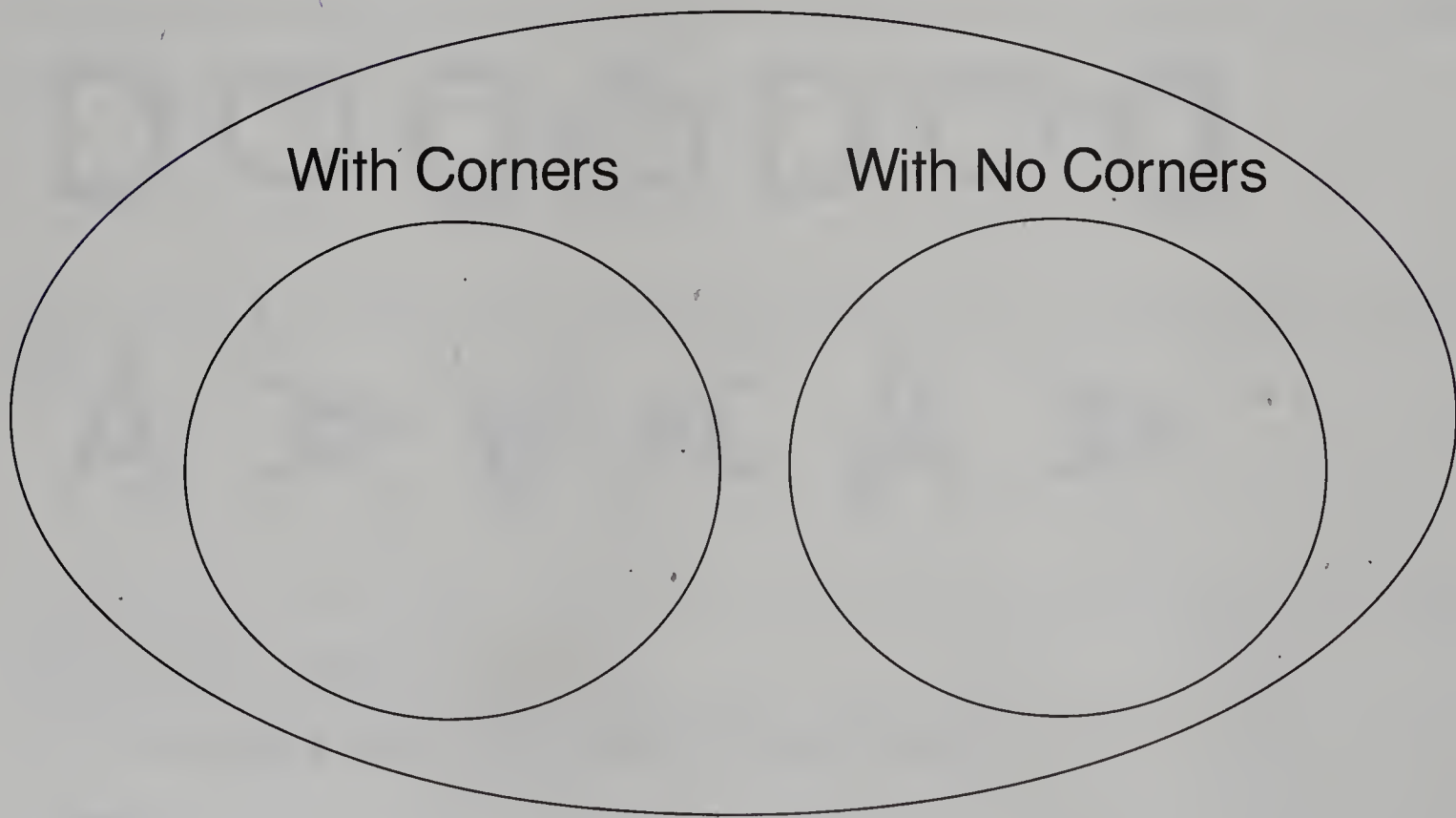
1. **Sort** the shapes into two groups: shapes with corners and shapes with no corners. Draw each shape in the correct circle.



Shapes

With Corners

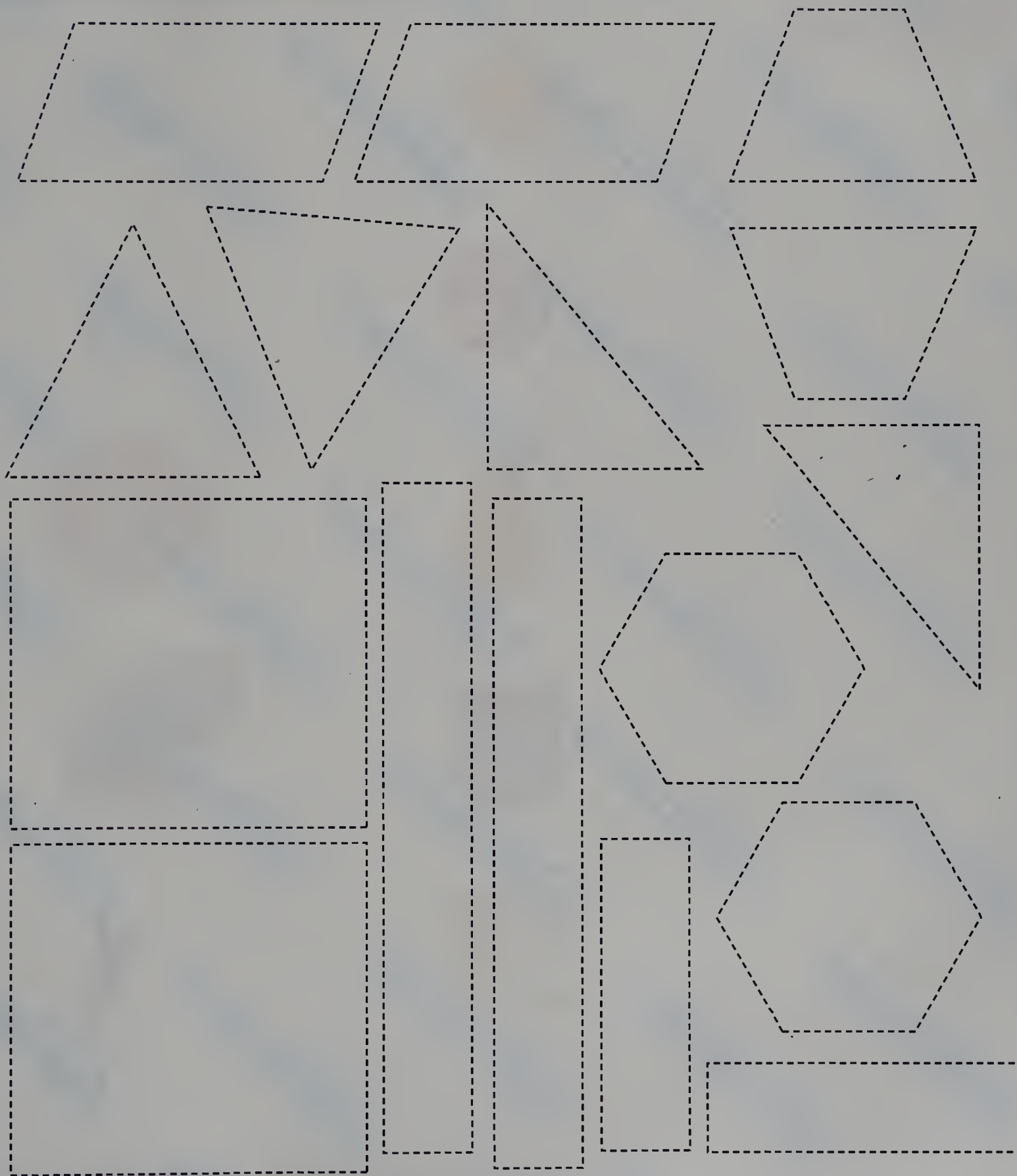
With No Corners



2. Draw one more shape in each circle.



Class Activity





Going Further

Draw a line to match like shapes.

Write the name of the shape.

Vocabulary

sphere
cube
cone
cylinder
rectangular prism

1.



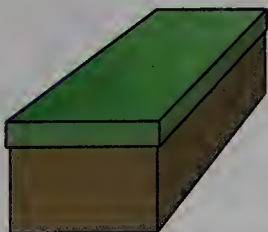
2.



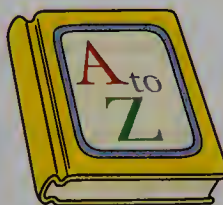
3.



4.



5.





6. On the Back Think of an example of a solid shape you have seen at home. What is the object? What kind of solid shape is it?

Name _____

Handwriting practice lines consisting of multiple sets of three horizontal lines (top solid, middle dashed, bottom solid) for letter formation.

Class Activity**Vocabulary**

sorting rule
roll
stack
slide

Circle the solid shapes that follow the **sorting rule**.

1. Solid shapes that **roll**



2. Solid shapes that **stack**



3. Solid shapes that **slide**



4. Write your own sorting rule. Then circle the solid shapes that follow the rule.

My Sorting Rule _____



 **5. On the Back** Choose 2 solid shapes.
Tell how they are the same.

Name _____

Handwriting practice lines consisting of solid top and bottom lines with a dashed middle line. There are 10 sets of these lines across the page.

Class Activity
Vocabulary

cone
cube
cylinder
sphere

Write the name of the two solid shapes in the picture.

1.



2.



Predict how many cubes you need to build each shape. Then build the shape. Record the actual number of cubes you used.

3.



Prediction

Actual Number

4.



Prediction

Actual Number

5. Predict how many  you can make from this shape. Then find the actual number.



Prediction

Actual Number



6. On the Back Use cubes to build a shape.

Then draw your shape.

Name _____



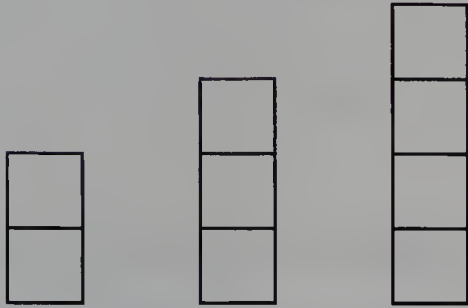
Class Activity

Vocabulary

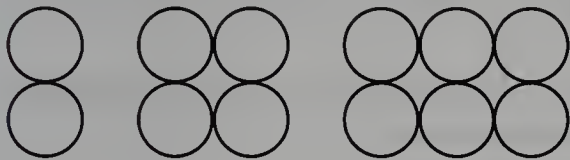
growing pattern

Continue each **growing pattern** two more times.

1.



2.



3. AB ABB ABBB

4.

454
44544
4445444

Find the pattern and complete the table. Solve.

1.

Weeks	1	2		
Books	5	10		

Mina reads 5 books each week.

How many books will she read

in 4 weeks?

_____ label

2.

Months	1					
Dimes	10					

Corey's grandmother gives him 10 dimes each month. How many dimes will he have after 6 months?

_____ label

3.

Days							
Miles							

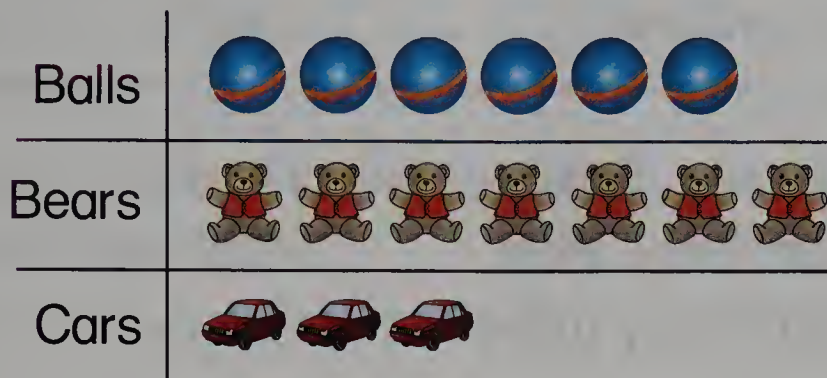
Sam walks 3 miles each day.

How many miles does he walk

in 1 week?

_____ label

Toys at the Toy Store



Use the graph to answer the questions below.

1. Are there more balls or cars? _____
2. Are there fewer cars or bears? _____
3. The store has the most of which toy? _____

4. Make a picture graph about the shapes.



Circles								
Rectangles								

5. Complete the sentences. Ring the word **more** or **fewer**.

There are **more** **fewer** rectangles than circles.

There are **more** **fewer** circles than rectangles.

Solve the story problems.
Use drawings and numbers.

6. Terry made 8 pictures. Sanjay made 4 more than Terry. How many pictures did Sanjay make?

_____ label

7. Maya has 7 pears. Raul has 4 pears. How many fewer pears does Raul have than Maya?

_____ label

8. Jen has 9 ribbons. Sara has 6 fewer ribbons than Jen. How many ribbons does Sara have?

_____ label

9. Ms. Patel has 12 plants. Mr. Jones has 7 plants. How many more plants does Ms. Patel have than Mr. Jones?

_____ label

Solve the story problems.
Use drawings and numbers.

- 10.** There were 18 rabbits yesterday.
There are 5 fewer today.
How many are there today?

label

- 11.** Matt has 9 flowers. Olga has
5 flowers. How many more flowers
does Matt have than Olga?

label

- 12.** Make a table from the picture graph below.

Picture Graph

Zebras	
Camels	
Lions	

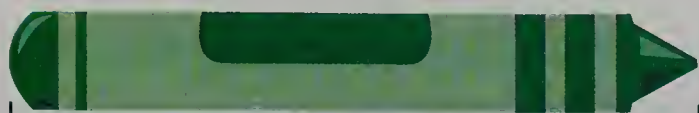
Table

Animal	Number

- 13.** How many zebras are there? _____
- 14.** Are there more lions or camels? _____
- 15.** Are there fewer lions or zebras? _____

Unit Test

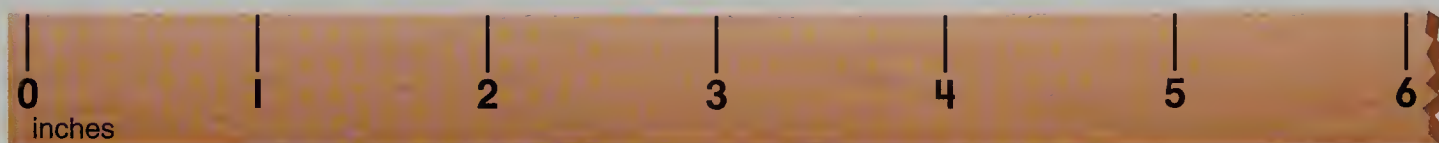
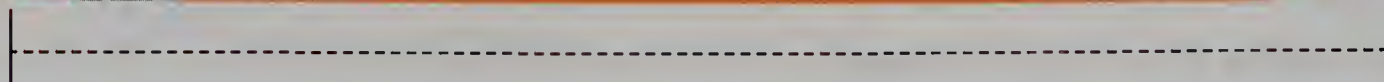
16. Measure the school supplies. Complete the table.



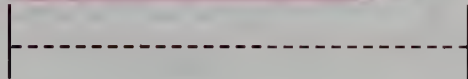
Crayon



Pencil



Eraser



Object	Length
Crayon	
Pencil	
Eraser	

17. How much shorter is the crayon than the pencil? _____ inches

18. How much longer is the pencil than the eraser? _____ inches

19. How much shorter is the eraser than the crayon? _____ inch

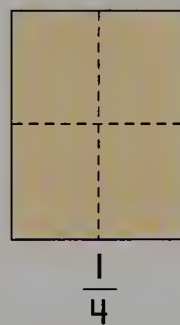
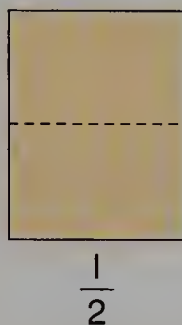
20. Extended Response Use the table. Write and answer a question to compare length.



Dear Family:

In math class, children will begin to explore common fractions and the relationship between parts and the whole. They will develop strategies for finding one half and one fourth of a number. They will also find fractional parts of a set of objects, using trial and error methods.

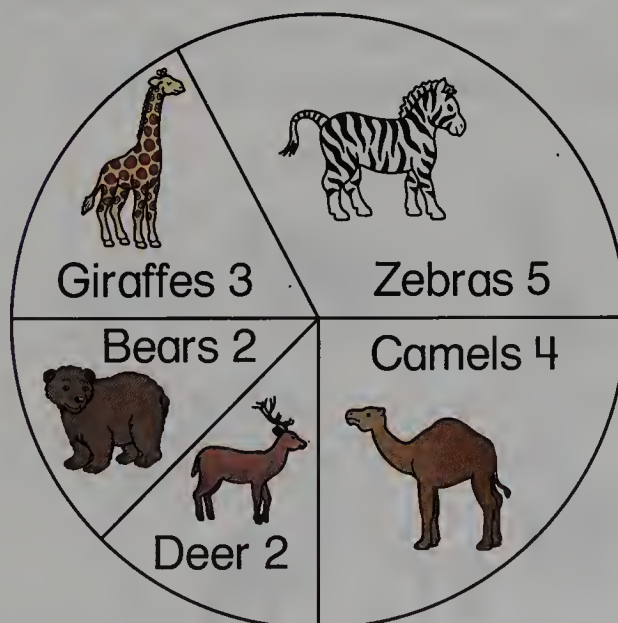
For example, children will find halves and fourths of common geometric shapes, such as a rectangle.



Later in the unit, children will extend their understanding of fractions to include halves and fourths of 100 as numbers and as coins (half dollar and quarter).

Further applications of wholes and halves are seen when clocks and time are discussed. Children are introduced to digital and analog clocks. They learn to tell time in whole- and half-hours.

Finally, children begin investigating simple circle graphs. They will use such graphs to make comparisons. They will also convert information on a graph to a table.



Giraffes	3
Zebras	5
Bears	2
Deer	2
Camels	4
Total	16

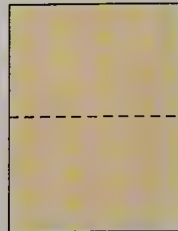
Sincerely,
Your child's teacher



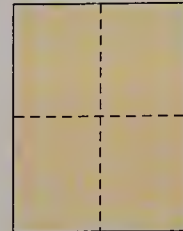
Estimada familia:

En la clase de matemáticas los niños van a empezar a explorar las fracciones comunes y la relación entre las partes y el todo. Van a desarrollar estrategias para hallar una mitad y un cuarto de un número. Hallarán también las partes fraccionarias de un conjunto de objetos, usando métodos de prueba y error.

Por ejemplo, los niños hallarán las mitades y los cuartos de figuras geométricas comunes, como los rectángulos.



$$\frac{1}{2}$$



$$\frac{1}{4}$$

Más adelante en la unidad los niños van a ampliar su comprensión de las fracciones al incluir las mitades y los cuartos de 100. Más adelante en la unidad los niños van a ampliar su comprensión de las fracciones al incluir las mitades y los cuartos de 100, tanto en forma de número como de monedas (monedas de 50 centavos y monedas de 25 centavos).

Verán más aplicaciones de los todos y las mitades cuando estudien los relojes y la hora. Los niños llegan a conocer los relojes analógicos y digitales. Aprenden a decir las horas enteras y las medias.

Por último, los niños empiezan a explorar con gráficas circulares simples. Usarán estas gráficas para hacer comparaciones. También pasarán la información de una gráfica a una tabla.



Jirafas	3
Cebras	5
Osos	2
Ciervos	2
Camellos	4
Total	16

Atentamente,
El maestro de su niño

Going Further**Vocabulary**

double

Find the **double**.

1. $3 + 3 =$ 6

2. $4 + 4 =$ 8

3. $5 + 5 =$ 5

4. $6 + 6 =$ 12

5. $7 + 7 =$ 14

6. $8 + 8 =$ 16

7. $9 + 9 =$ 18

8. $10 + 10 =$ 20

Use doubles to find the total.

9. $3 + 4 =$ 7

10. $5 + 4 =$ 9

11. $6 + 5 =$ 11

12. $6 + 7 =$ 13

13. $7 + 8 =$ 15

14. $9 + 8 =$ 17

15. $9 + 10 =$ 19

16. $10 + 11 =$ 21

17. $7 + 6 =$ 13

18. $4 + 5 =$ 9

19. $5 + 6 =$ 11

20. $8 + 7 =$ 15

 **21. On the Back** Look back at Exercises 9–20. Choose 2 problems. Explain how you found the total.

Name _____

Extra Practice

Vocabulary

half

double

1. Make **half** the recipe. Write the amount for each ingredient.

Half	A Recipe for Playdough
$6 \div 2 = 3$	6 cups flour
$12 \div 2 = 6$	12 cups oatmeal
$6 \div 2 = 3$	6 cups water

2. **Double** the recipe. Write the amount for each ingredient.

Double	A Recipe for Play Clay
$4 + 4 = 8$	4 cups cornstarch
$3 + 3 = 6$	3 cups white glue
$7 + 7 = 14$	7 drops food coloring

3. Draw 10 crackers. Ring half of them.



**Extra Practice**

1. Use doubles to add.

$3 + 3 = \boxed{6}$

$7 + 7 = \boxed{14}$

$1 + 1 = \boxed{2}$

$8 + 8 = \boxed{16}$

$5 + 5 = \boxed{10}$

$4 + 4 = \boxed{8}$

$4 + 4 = \boxed{8}$

$9 + 9 = \boxed{18}$

$7 + 7 = \boxed{14}$

$6 + 6 = \boxed{12}$

$3 + 3 = \boxed{6}$

$5 + 5 = \boxed{10}$

$2 + 2 = \boxed{4}$

$8 + 8 = \boxed{16}$

$9 + 9 = \boxed{18}$

2. Use halves to subtract.

$6 - 3 = \boxed{3}$

$2 - 1 = \boxed{1}$

$4 - 2 = \boxed{2}$

$12 - 6 = \boxed{6}$

$8 - 4 = \boxed{4}$

$10 - 5 = \boxed{5}$

$16 - 8 = \boxed{8}$

$14 - 7 = \boxed{7}$

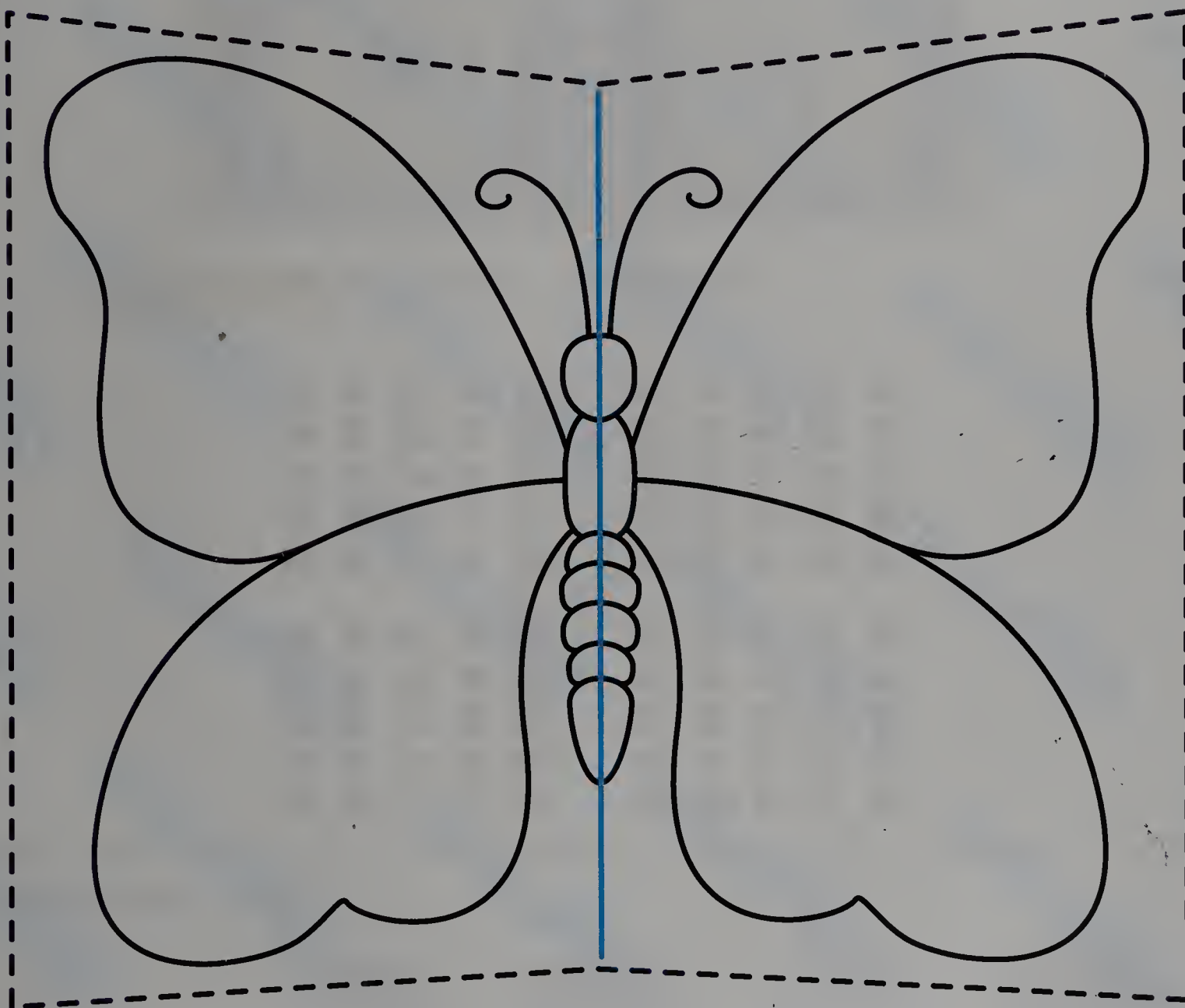
$18 - 9 = \boxed{9}$

Going Further

Vocabulary

half

1. Decorate the butterfly kite.
Make each **half** the same.



2. Fold along the middle line.
Then cut on the outside dashed line.

Class Activity
Vocabulary

one fourth

quarter



1. Ring **one fourth** of a dollar (100 pennies).



2. How many cents?



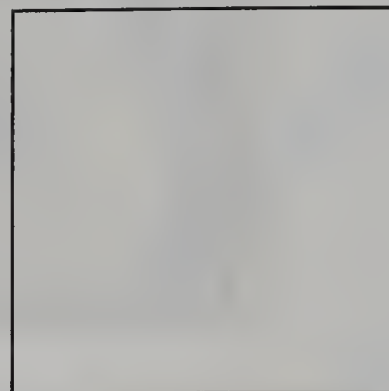
Total so far _____

3. **Show** Ring the pennies in Exercise 1 to show the value of three **quarters**.

Going Further

Solve the story problems.

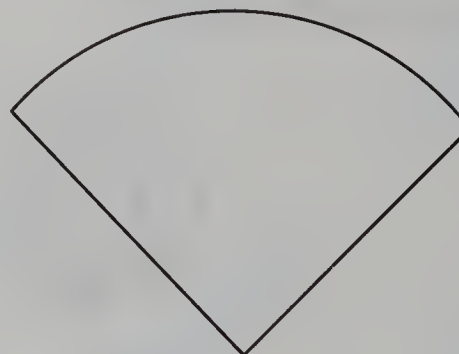
1. Four friends want to share a sandwich. How should they cut the sandwich so that each child gets the same amount? Draw lines to show the equal shares. Color each share a different color.



2. The 4 friends want to share a pie for dessert. How should they cut the pie so that each child gets the same size slice? Draw lines to show the equal shares. Color each share a different color.



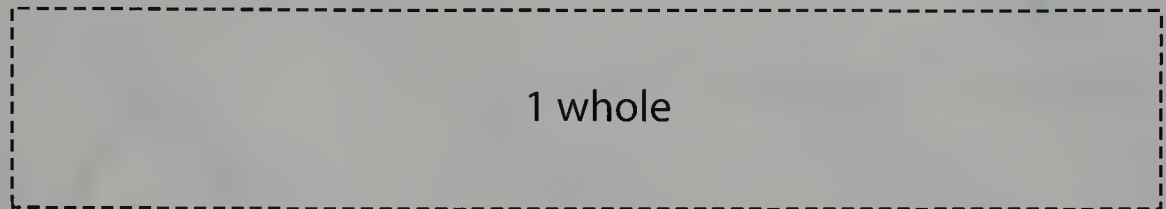
3. One friend wants only half of her pie slice. How should she cut her slice in half? Draw a line to show the halves. Color each half a different color.



**Class Activity**

Color the fraction strips. Cut on the dashed lines.

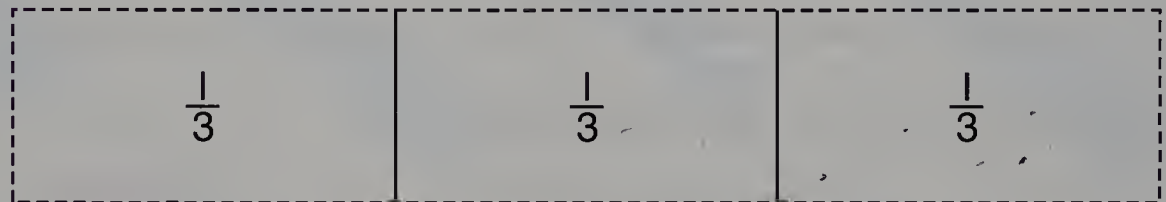
Color
1 whole.



Color $\frac{1}{2}$.



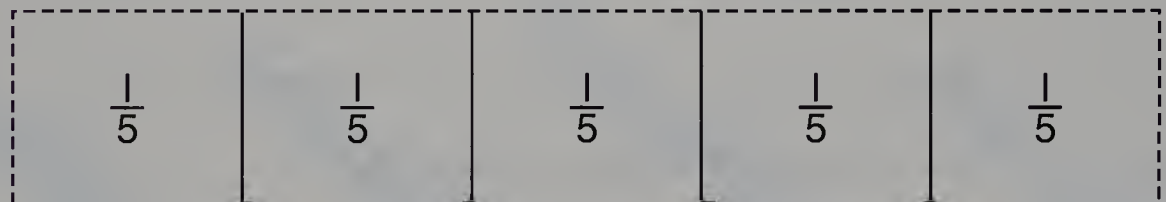
Color $\frac{1}{3}$.



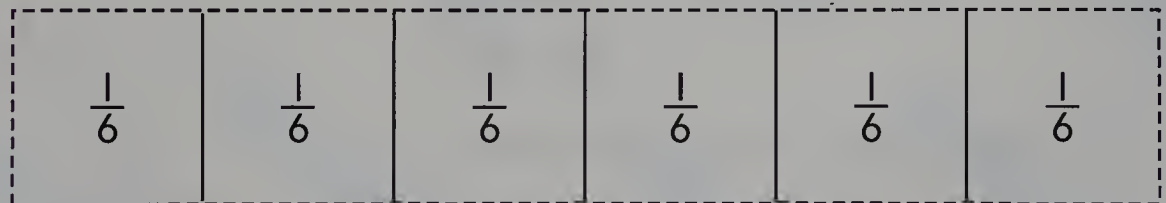
Color $\frac{1}{4}$.



Color $\frac{1}{5}$.



Color $\frac{1}{6}$.

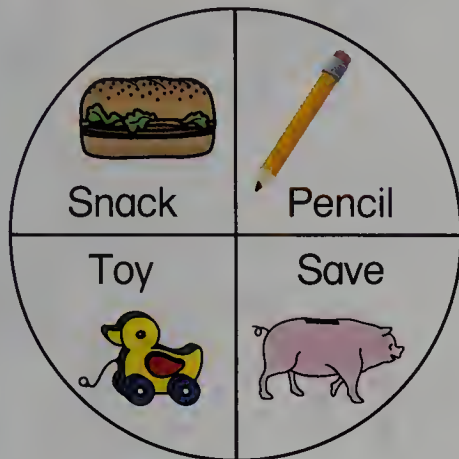




Class Activity
Vocabulary
 circle graph
 fraction

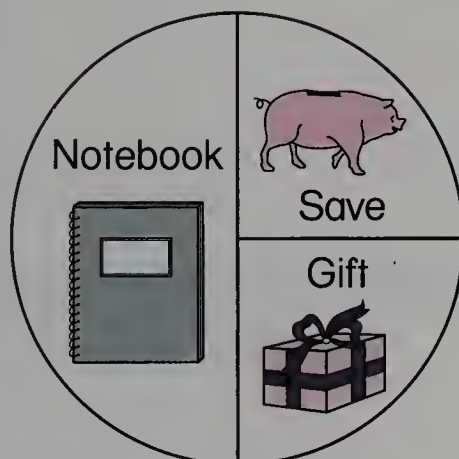
The **circle graphs** on this page show what 3 children did with a dollar.

Tim



- How many cents did Tim save?
_____ ¢
- What **fraction** of the dollar did Tim spend on the snack and the pencil together?

Jamila



- How many cents did Jamila spend on the notebook? _____ ¢
- What fraction of the dollar did Jamila save?

Kelly



- Kelly spent twice as much money on the _____ as on the ring.
- What fraction of the dollar did Kelly save? _____

 **7. On the Back** Show 50¢, 25¢, and 25¢ on a circle graph of one dollar.

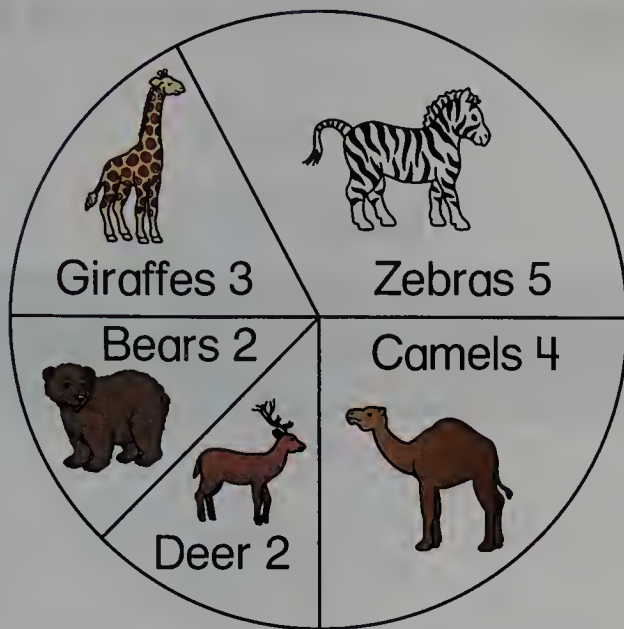
Name _____



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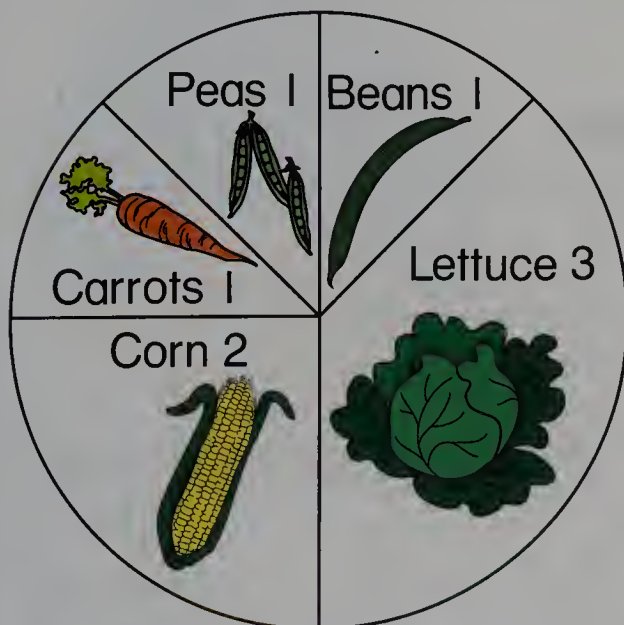
Class Activity

Animals at the Zoo



1. The zoo has the most of which animal? _____
2. How many more camels are there than bears? _____
3. How many fewer deer are there than zebras? _____
4. There are the same number of _____ and _____.

Rows of Vegetables in the Garden



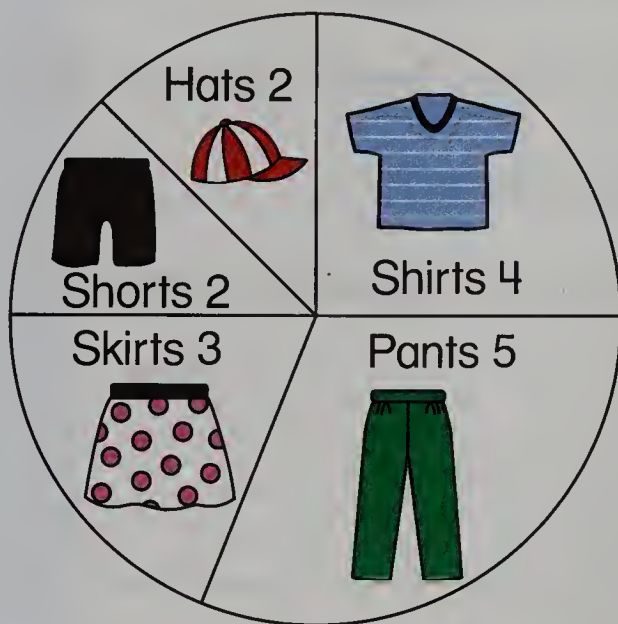
5. How many more rows of lettuce are there than rows of carrots? _____
6. How many fewer rows of peas are there than rows of corn? _____
7. The garden has the most of which vegetable? _____
8. How many rows of vegetables are there altogether? _____

Class Activity
Vocabulary

circle graph

picture graph

Make a table of the clothes that are in the **circle graph**. Then make a **picture graph** with the same information.

Clothes in the Closet**1.****Table**

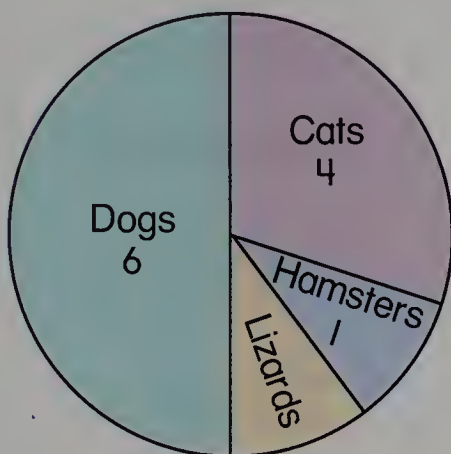
Kind of Clothes	Number

2.**Picture Graph**

Going Further

Each graph has a total of 12 animals. Find the unknown number of animals on each graph.

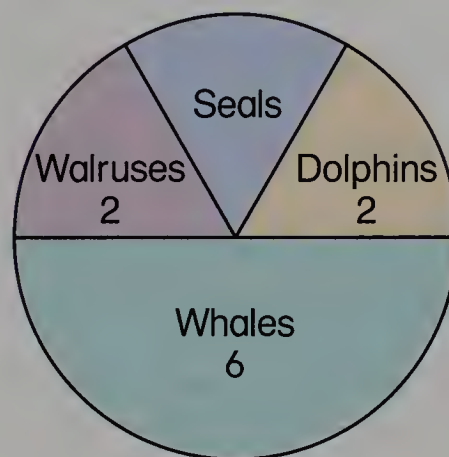
1. Pets



How many lizards?

label

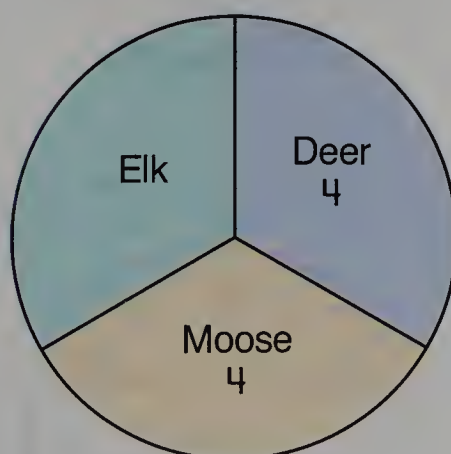
2. Sea Mammals



How many seals?

label

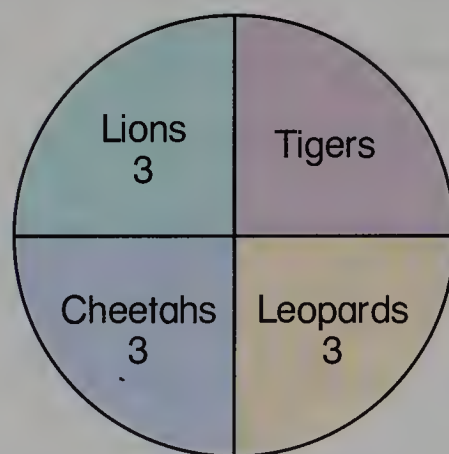
3. Forest Animals



How many elk?

label

4. Big Cats



How many tigers?

label



5. On the Back Write a comparison question based on one of the graphs. Then answer your question.

Name _____

Handwriting practice lines consisting of solid top and bottom lines with a dashed midline, repeated across the page.



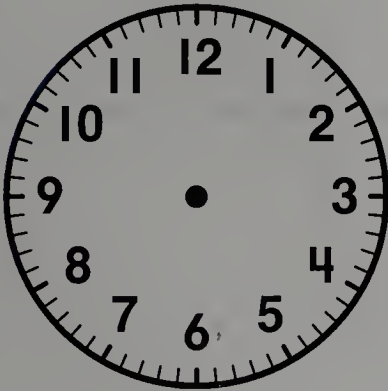
Class Activity

1.

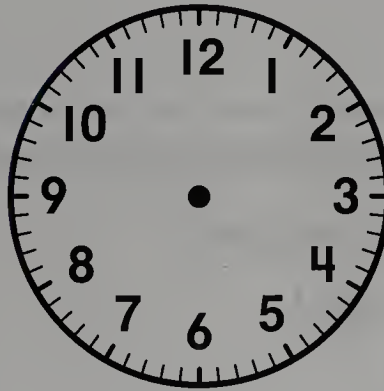
2.

3.

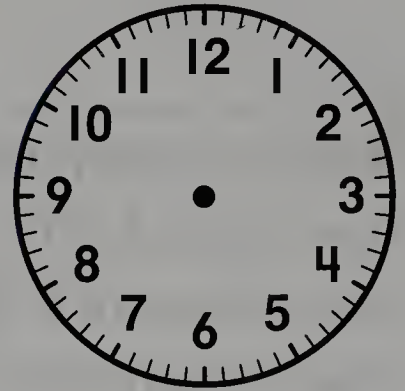
4.



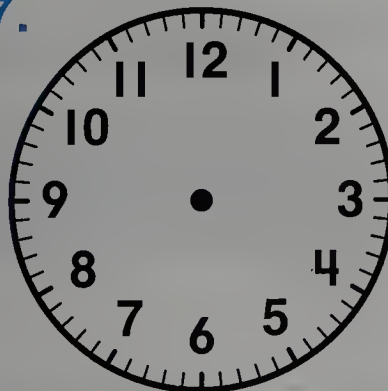
5.



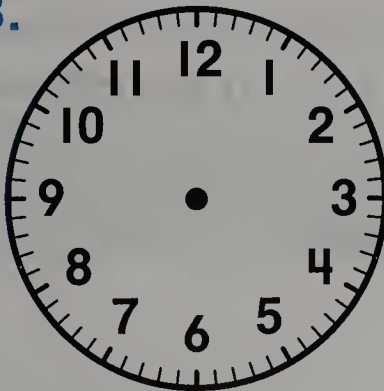
6.



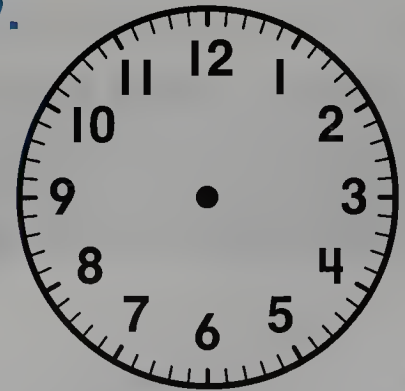
7.



8.



9.



Going Further

Solve the story problems. Use a clock.

1. The football game started at 1:00 in the afternoon. It ended at 4:00 in the afternoon.
How long did the game last?

hours

2. Tony went to the park at 10:00 in the morning.
He played until his lunchtime at 12:00.
How long did Tony play at the park?

hours

3. Jessica's family went to visit their grandparents.
They left at 3:00 in the afternoon.
They arrived at 9:00 at night.
How long was their trip?

hours

4. Corey's party started at 3:30 in the afternoon.
It lasted for 2 hours.
What time did the party end?
- _____
-

5. Mio started her ice skating practice at 2:00.
She practiced for 1 hour 30 minutes.
What time did she finish practicing?
- _____

Class Activity
Vocabulary

table
circle graph
picture graph

Use the **table** to make a **circle graph** and a **picture graph**.

Kind of Cereal	Number
oatmeal	3
flakes	6
granola	3

Circle Graph**Picture Graph**

Kind of Cereal	Number					

School-Day Schedule

Extra Practice

Each show lasts 30 minutes. You can walk from one show to another in less than 30 minutes.



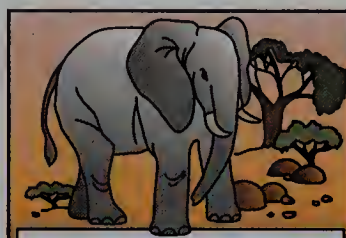
Bird House

Shows at:
11:00, 1:00, 3:00



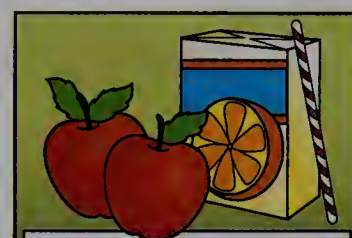
Petting Zoo

Open All Day



African Savannah

Shows at:
11:00, 1:00, 2:00, 3:00



Cafeteria

Open All Day



Jungle Adventure

Shows at:
11:00, 1:00, 2:00, 3:00



American Forest

Open All Day



Arctic World

Shows at:
11:00, 1:00, 3:00



Reptile House

Shows at:
11:00, 1:00, 3:00

Plan a day at the zoo. Use the posters. Choose the things you would like to do. Fill in the schedule.

10:00-11:00	11:00-12:00	12:00-1:00	1:00-2:00	2:00-3:00	3:00-4:00

➡ **On the Back** Use your schedule to write a question. Then answer your question.

Name _____

Class Activity

Fill in the calendar for this month.

Month of _____

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Use the calendar to find the answer.

1. What day of the week is today? _____
2. What day of the week is tomorrow? _____
3. What day of the week was yesterday? _____
4. What day of the week is the fifth? _____
5. What is the date of the second Sunday in this month?

6. If today is the tenth, what day of the week is tomorrow?

7. What is the date of the first Friday in this month?

8. What day of the week comes after the last date on your calendar? _____

Class Activity

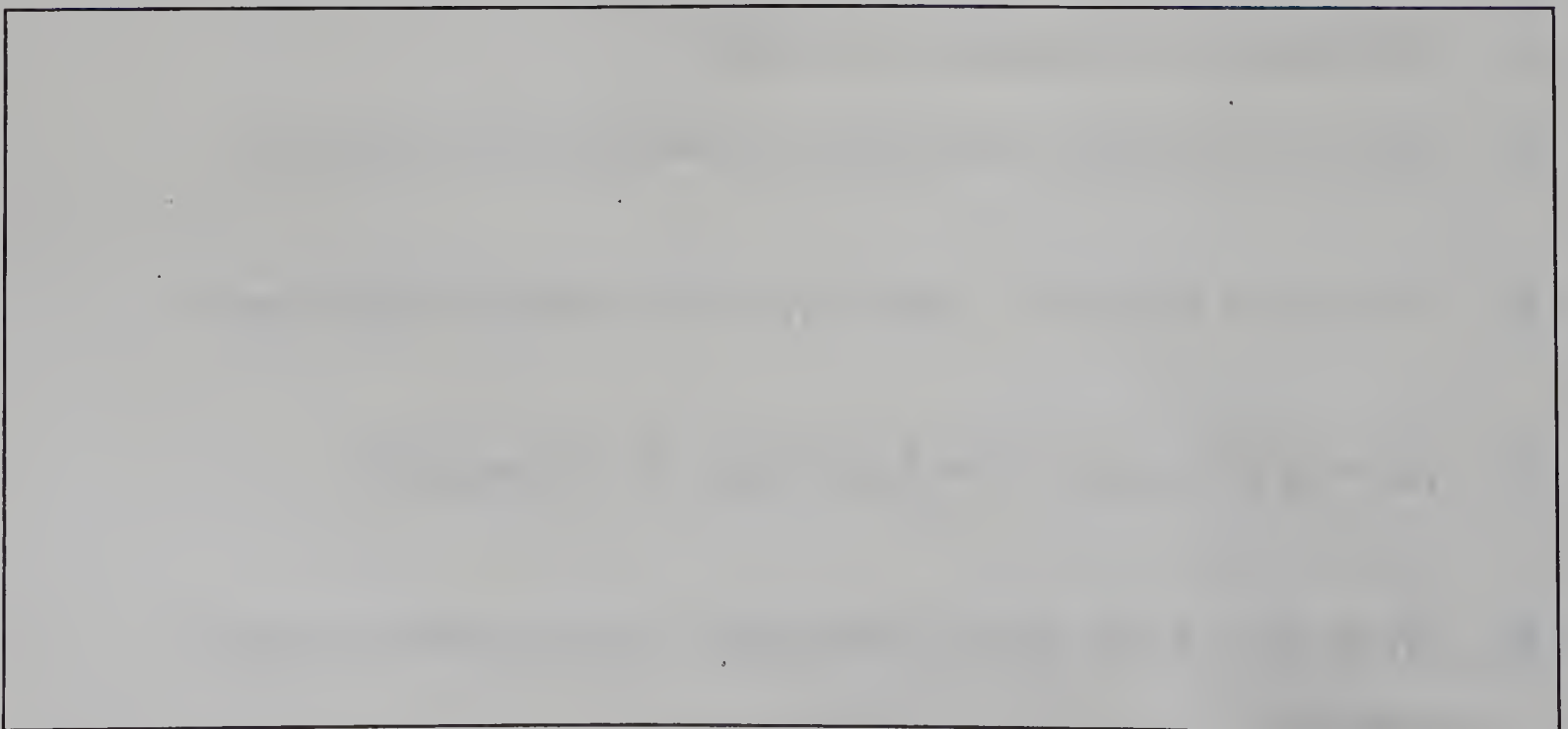
Use the calendars to answer the questions.

June						
Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

July						
Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August						
Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

- Which of these months has the fewest number of days? _____
- Which month has 5 Thursdays? _____
- Make an X on the Fourth of July.
- Ring all the Mondays in August.
- What month comes before June? _____
- Choose a month. Draw a picture of something you like to do that month.



Class Activity

Lupe and Kavi wrote these reports for their Science Fair projects. They both planted 4 lima bean seeds about 6 weeks ago.

Lupe's Report	Kavi's Report																																			
All 4 seeds sprouted. They are growing. I measured them today. Plant 1: 6 inches Plant 2: 5 inches Plant 3: 6 inches Plant 4: 4 inches	All 4 seeds sprouted. It took 2 weeks for them to sprout. Now they are growing between 1 and 2 inches every week. I measure them every week. <table><tr><th></th><th>W1</th><th>W2</th><th>W3</th><th>W4</th><th>W5</th><th>W6</th></tr><tr><td>P1</td><td>0</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>P2</td><td>0</td><td>0</td><td>2</td><td>3</td><td>5</td><td>6</td></tr><tr><td>P3</td><td>0</td><td>0</td><td>2</td><td>4</td><td>5</td><td>6</td></tr><tr><td>P4</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table> P = Plant W = Week		W1	W2	W3	W4	W5	W6	P1	0	0	1	2	3	4	P2	0	0	2	3	5	6	P3	0	0	2	4	5	6	P4	0	1	2	3	4	5
	W1	W2	W3	W4	W5	W6																														
P1	0	0	1	2	3	4																														
P2	0	0	2	3	5	6																														
P3	0	0	2	4	5	6																														
P4	0	1	2	3	4	5																														

1. What does Lupe's report tell you?

2. What does Kavi's report tell you?

3. Whose report tells more about the way beans grow? Explain your answer.

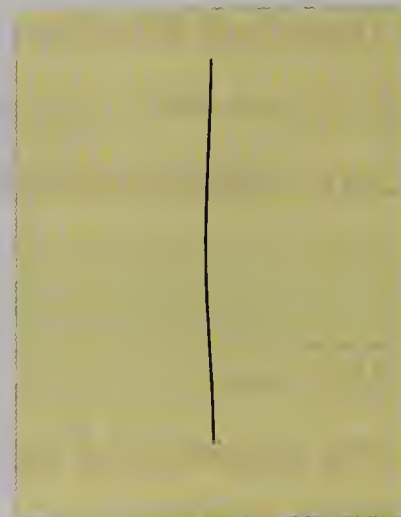


Class Activity

When does a flip look the same as a slide?

First, cut out the shapes that your teacher gives you.

Then, draw a vertical line on a piece of paper.



1. Flip Shape A over the vertical line.

Draw what it looks like before and after the flip.

2. Slide Shape A across the vertical line.

Draw what it looks like before and after the slide.

3. Do the flip and slide of Shape A look the same or different? Ring the answer.

Same Different

4. Flip Shape B over the vertical line.

Draw what happens.

5. Slide Shape B across the vertical line.

Draw what happens.

6. Do the flip and slide of Shape B look the same or different? Ring the answer.

Same Different

7. Flip and slide the other shapes. Draw what happens.

8. When does a flip look the same as a slide?

Use doubles to add.

1.

$$6 + 6 = \boxed{}$$

2.

$$7 + 7 = \boxed{}$$

3.

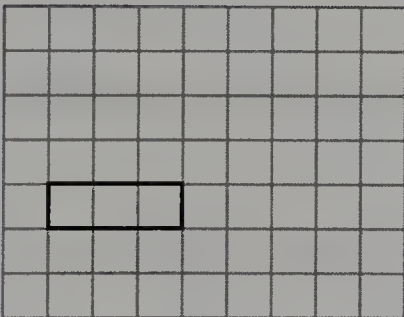
$$9 + 9 = \boxed{}$$

4.

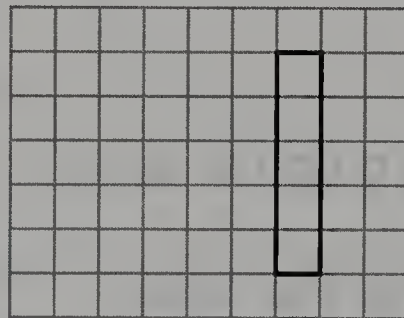
$$8 + 8 = \boxed{}$$

Make each rectangle twice as big.

5.



6.

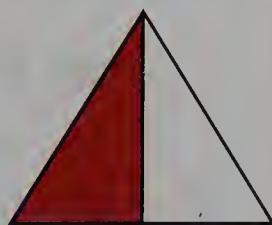


How much is shaded? Write $\frac{1}{2}$ or $\frac{1}{4}$.

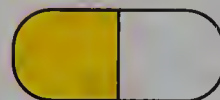
7.



8.



9.



Ring half of the objects. Then fill in the blanks.



Half of _____ is _____.



Half of _____ is _____.

Ring one fourth of the objects. Then fill in the blanks.



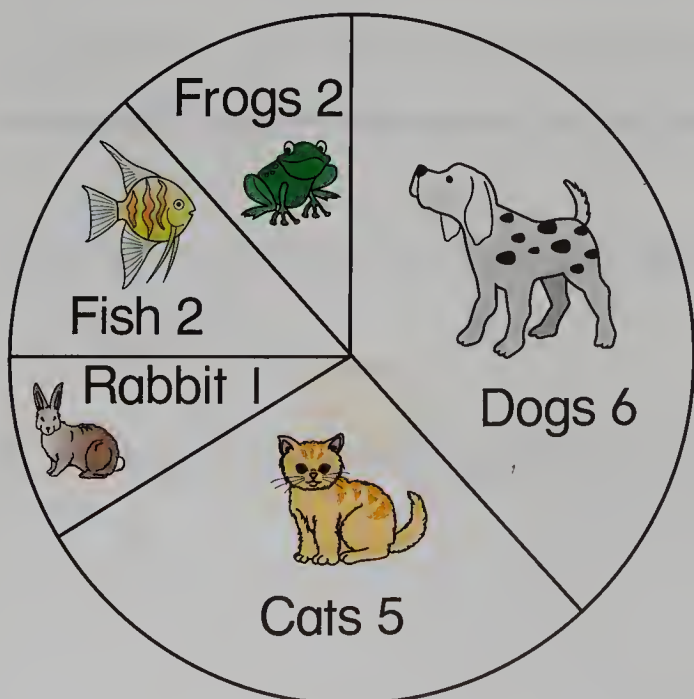
One fourth of _____ is _____.



One fourth of _____ is _____.

Use the circle graph to answer the questions.

Pets at the Pet Store



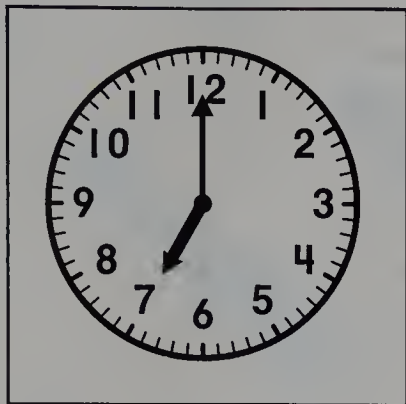
14. The pet store has the most of which pet? _____

15. How many more cats are there than frogs? _____

16. How many fewer fish are there than dogs? _____

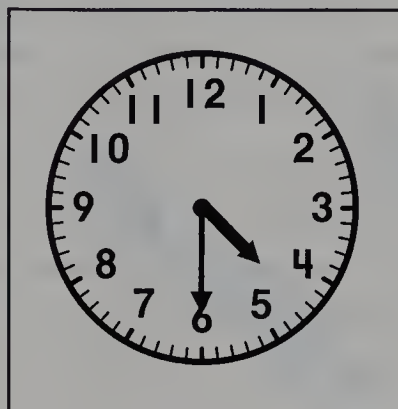
Write the time in the boxes.

17.



:

18.



:

19. Ring the month that comes before April.

August

March

May

20. **Extended Response** Write an equation with doubles and a teen total. Make a drawing of the doubles.

--



Dear Family:

In the current math unit, children are learning to use coins in different combinations to show a total number of cents. They use real quarters, dimes, nickels, and pennies to calculate totals and identify alternate coin combinations. Children are also learning how to convert cents into coins and to convert coins into cents.

There are several ways children can identify an amount of money shown by coins. One method is to use stick-and-circle drawings in which each stick represents 10¢ and each circle represents 1¢. Children use these drawings to represent the coins in story problems, circling each 5-group to make a nickel. For example:

Sonya has 4 dimes, 1 nickel, and 3 pennies. How much money does she have?

|||| ○○○○○ ○○○ **48¢**
4 dimes 1 nickel 3 pennies

Children can solve the same problem by converting the coins to cents, and then building and solving an equation.

$$10¢ + 10¢ + 10¢ + 10¢ + 5¢ + 3¢ = 48¢$$

Your child's work with coin conversions will help him or her proceed smoothly to later lessons in the unit, during which children will explore multi-digit addition strategies.

Sincerely,
Your child's teacher



Estimada familia:

En esta unidad, los niños aprenden a usar monedas en diferentes combinaciones para mostrar el total en centavos. Utilizan monedas reales de veinticinco, diez, cinco y un centavos para calcular los totales e identificar varias combinaciones posibles de monedas. Los niños también están aprendiendo a transformar centavos en monedas y transformar monedas en centavos.

Hay varias maneras en que los niños pueden identificar una cantidad de dinero con monedas. Un método es usar dibujos de palitos y círculos en los que cada palito representa 10¢ y cada círculo representa 1¢. Los niños usan estos dibujos para representar las monedas en problemas, rodeando con un círculo cada grupo de cinco para formar una moneda de cinco centavos. Por ejemplo:

Sonya tiene 4 monedas de 10 centavos, 1 de cinco centavos y 3 de un centavo. ¿Cuánto dinero tiene?

||||

⊖⊖⊖⊖⊖

ooo

48¢

4 monedas de 10¢

1 moneda de 5¢

3 monedas de 1¢

Los niños pueden resolver el mismo problema transformando las monedas a centavos y luego formando y resolviendo una ecuación.

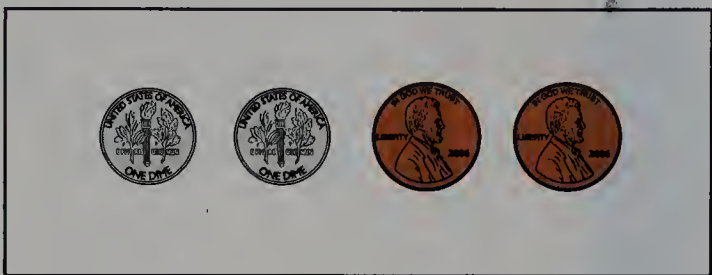
$$10¢ + 10¢ + 10¢ + 10¢ + 5¢ + 3¢ = 48¢$$

El trabajo con la conversión de monedas ayudará a su niño a pasar sin demasiada dificultad a otras lecciones de la unidad en las que van a explorar métodos para la suma con números de varios dígitos.

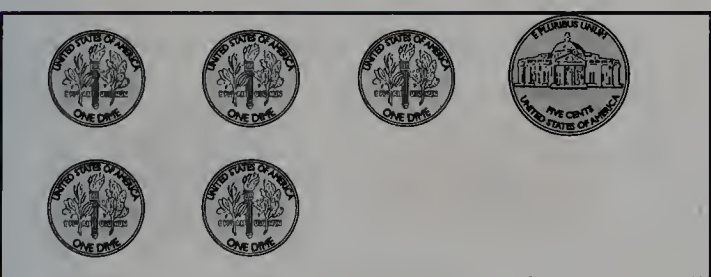
Atentamente,
El maestro de su niño

Going Further

Write the value of the coins. Ring the two boxes that have the same amount.

1.  2. 

3.  4. 

5.  6. 

 **7. On the Back** Show 4 different sets of coins that have the same value as the coins in Exercise 5.

Name _____



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Class Activity

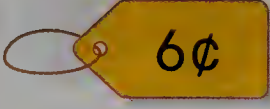
How much for each pair of things?

1.   +  

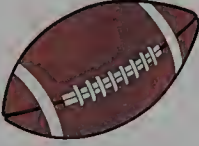
¢

2.   +  

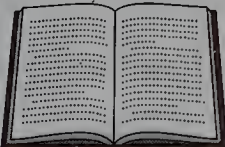
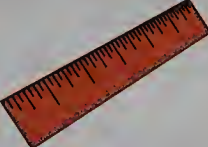
¢

3.   +  

¢

4.   +  

¢

5.   +  

¢

Extra Practice

Vocabulary

nickel

penny

Use the menu to answer the questions.

Snack Bar Menu



75¢



45¢



60¢



50¢

1. Lauren has this amount of money:



Does she have enough money to buy a banana?

Yes ☐No ☐

2. Paul has this amount of money:



Does he have enough money to buy an apple?

Yes ☐No ☐

3. If Paul gives Lauren 1 more **nickel** and 2 more **pennies**, will she have enough money to buy a bottle of juice?

Yes ☐No ☐

Class Activity

Uncle David
28 Apples



Put extra apples here.

Aunt Sarah
16 Apples

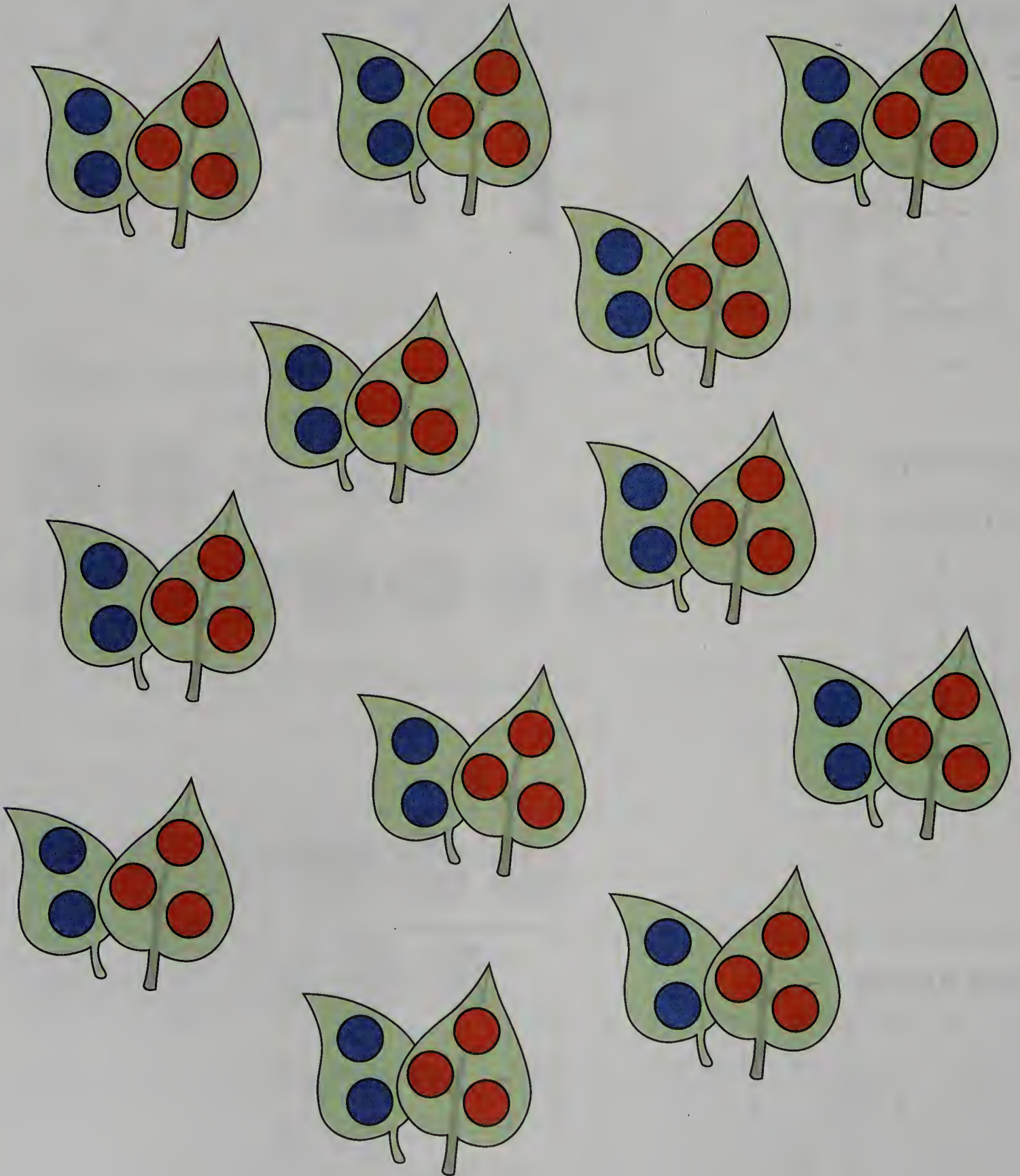
Put extra apples here.

Total Apples

Put extra apples here.

Going Further

Find the total number of berries.



Total: berries



Dear Family:

Your child has been using special drawings of 10-sticks and circles to add greater numbers. The sticks show the number of tens, and the circles show the number of ones. When a new group of ten is made, it is circled.



There are several ways for children to show the new group of ten when they add with numbers.

1. Children can do the addition with a **single total**. The 1 for the new ten can be written either below the tens column or above it. Writing it below makes addition easier because the 1 new ten is added after children have added the two numbers that are already there. Also, children can see the 16 they made from 7 and 9 because the 1 and 6 are closer together than they were when the new ten was written above.

$$\begin{array}{r} 27 \\ + 49 \\ \hline 1 \\ 76 \end{array}$$

new ten
below

$$\begin{array}{r} 1 \\ 27 \\ + 49 \\ \hline 76 \end{array}$$

new ten
above

2. Children can make **separate totals** for tens and ones. Many first-graders prefer to work from left to right because that is how they read. They add the tens ($20 + 40 = 60$) and then the ones ($7 + 9 = 16$). The last step is to add the two totals together ($60 + 16 = 76$).

$$\begin{array}{r} 27 \\ + 49 \\ \hline 60 \\ + 16 \\ \hline 76 \end{array}$$

left to right

$$\begin{array}{r} 27 \\ + 49 \\ \hline 16 \\ + 60 \\ \hline 76 \end{array}$$

right to left

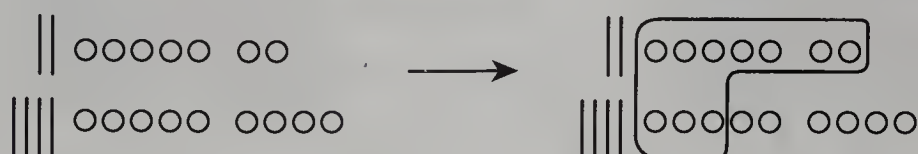
You may notice your child using one of these methods as he or she completes homework.

Sincerely,
Your child's teacher



Estimada familia:

Su niño ha estado usando dibujos especiales de palitos de 10 y círculos para sumar números más grandes. Los palitos muestran el número de decenas y los círculos muestran el número de unidades. Cuando se forma un nuevo grupo de diez, se hace un círculo a su alrededor.



Existen varias maneras de que los niños muestren el nuevo grupo de diez cuando suman números.

1. Los niños pueden hacer la suma con un **total único**. El 1 que indica la nueva decena se puede escribir abajo o arriba de la columna de las decenas. Escribirlo abajo hace que la suma sea más fácil porque la nueva decena se suma después de que los niños hayan sumado los dos números que ya estaban allí. Además, los niños pueden ver el 16 que obtuvieron de 7 y 9 porque el 1 y el 6 están más cerca uno de otro que cuando la nueva decena estaba escrita arriba.

$$\begin{array}{r} 27 \\ + 49 \\ \hline 16 \\ 76 \end{array}$$

nueva decena abajo

$$\begin{array}{r} 1 \\ 27 \\ + 49 \\ \hline 76 \end{array}$$

nueva decena arriba

2. Los niños pueden hacer **totales separados** para decenas y para unidades. Muchos estudiantes de primer grado prefieren trabajar de izquierda a derecha porque esa es la manera en que leen. Suman las decenas ($20 + 40 = 60$) y luego las unidades ($7 + 9 = 16$). El último paso es sumar ambos totales ($60 + 16 = 76$).

$$\begin{array}{r} 27 \\ + 49 \\ \hline 60 \\ + 16 \\ \hline 76 \end{array}$$

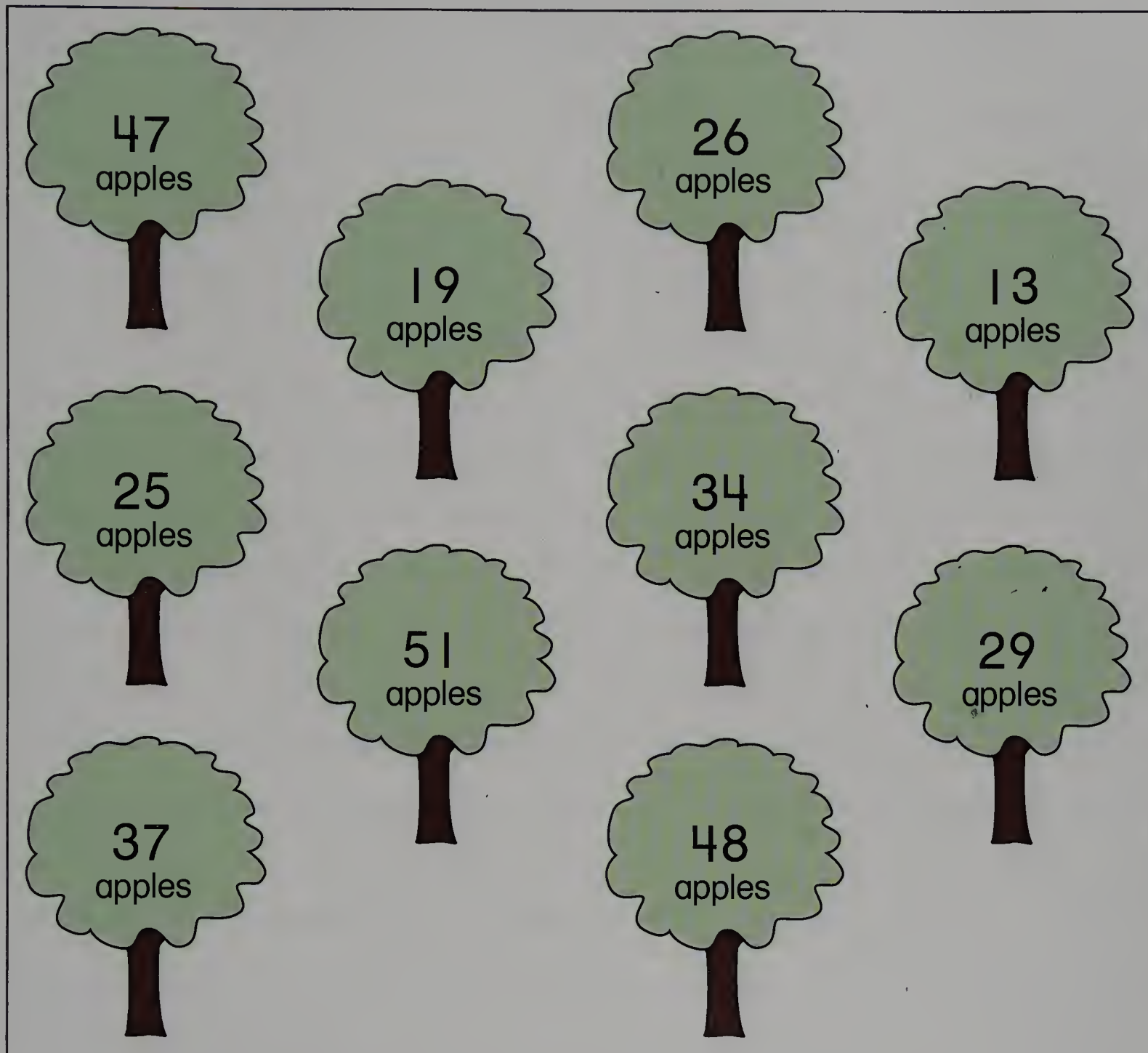
de izquierda
a derecha

$$\begin{array}{r} 27 \\ + 49 \\ \hline 16 \\ + 60 \\ \hline 76 \end{array}$$

de derecha
a izquierda

Es posible que Ud. observe que su niño usa uno de estos métodos al hacer la tarea.

Atentamente,
El maestro de su niño

Class Activity

1. Work in pairs. Each child chooses one apple tree.
2. On your MathBoard or paper, add the apples in the two trees.
3. Check to see if you both got the same answer.
4. Repeat with other trees.
5. **On the Back** Choose one of the trees above. Write a story problem with that number and the number 18. Then solve the problem.

Name _____

Class Activity

1. Work in pairs. Each child chooses one peach tree.
2. On your MathBoard or paper, add the peaches in the two trees.
3. Check to see if you both got the same answer.
4. Repeat with other trees.
- ➔ 5. **On the Back** Write 3 problems that will make a new ten.
Write or draw how you chose them.

Name _____



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Class Activity

Solve the story problems.

Show your work. Use drawings, numbers, or words.

1. Arturo grew 35 melons this year and 48 melons last year. How many melons did he grow in all?



melon

_____ label

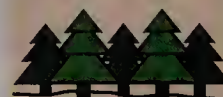
2. I saw 18 yellow butterflies and 29 white ones. What was the total number of butterflies I saw?



butterfly

_____ label

3. We found 26 maple leaves and 45 oak leaves in the forest. How many leaves did we find altogether?



forest

_____ label



4. **On the Back** Write an addition story problem about 27 apples and 64 apples. Solve it.

Name _____

Handwriting practice lines consisting of solid top and bottom lines with a dashed middle line. There are 10 sets of these lines across the page.

Class Activity

Fruit and Vegetable Stand



Peach 36¢



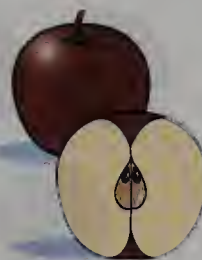
Celery 49¢



Pear 38¢



Grapes 50¢



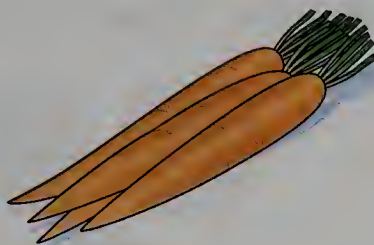
Apple 24¢



Beans 35¢



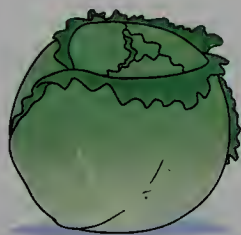
Melon 46¢



Carrots 47¢



Pepper 20¢



Lettuce 39¢



Tomato 30¢



Cucumber 18¢

Going Further

Vocabulary

money

1. How much **money** does Stephen have in all?



_____ ¢

+

_____ ¢

=

¢

2. How much money does Ranjani have in all?



_____ ¢

+

_____ ¢

=

¢

3. How much money does Angela have in all?



_____ ¢

+

_____ ¢

=

¢

4. Ring the name of the person who has the most money.

Stephen

Ranjani

Angela

Extra Practice

Each child wants to buy a school pin.
The pins cost 80 cents.

Fill in the blanks. Then draw lines to match to the coins.

1. Josh has 64 cents.
How much more money
does he need?

_____ cents more



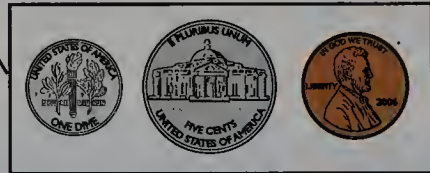
2. Delia has 54 cents.
How much more money
does she need?

_____ cents more



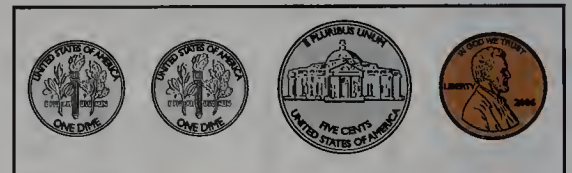
3. Eric has 58 cents.
How much more money
does he need?

_____ cents more



4. Jackie has 74 cents.
How much more money
does she need?

_____ cents more



- ➔ 5. **On the Back** Choose an amount between 20 cents and 30 cents. Pretend you have this much money.
How much more do you need to buy a school pin?
Draw the coins to show the amount.

Name _____

Handwriting practice lines consisting of multiple sets of three horizontal lines (top solid, middle dashed, bottom solid) for letter formation.



Class Activity

Solve the story problems.

Use the Penny Arrays to help you.

1. Helen has 32 cents. She wants to buy a basket that costs 1 dollar. How much more does she need?

 ¢

2. Paulo has 56 cents. He needs 1 dollar to go see the dolphins. How much more does he need?

 ¢

3. Jamaya has 49 cents. She wants a box of crayons that costs 1 dollar. How much more does she need?

 ¢

Going Further

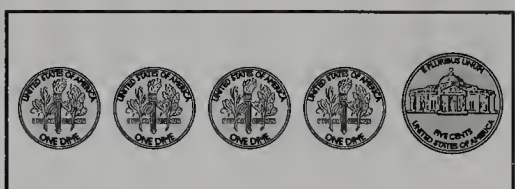
Write the amount under each box.
Then add to find the total amount.

1.



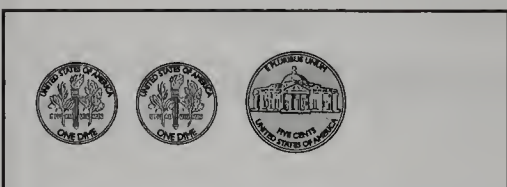
_____ cents + _____ cents = _____ cents

2.



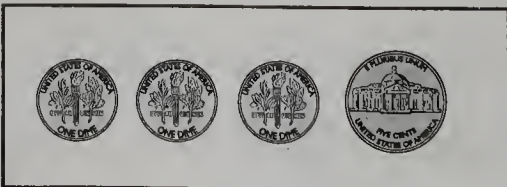
_____ cents + _____ cents = _____ cents

3.



_____ cents + _____ cents = _____ cents

4.



_____ cents + _____ cents = _____ cents

5.

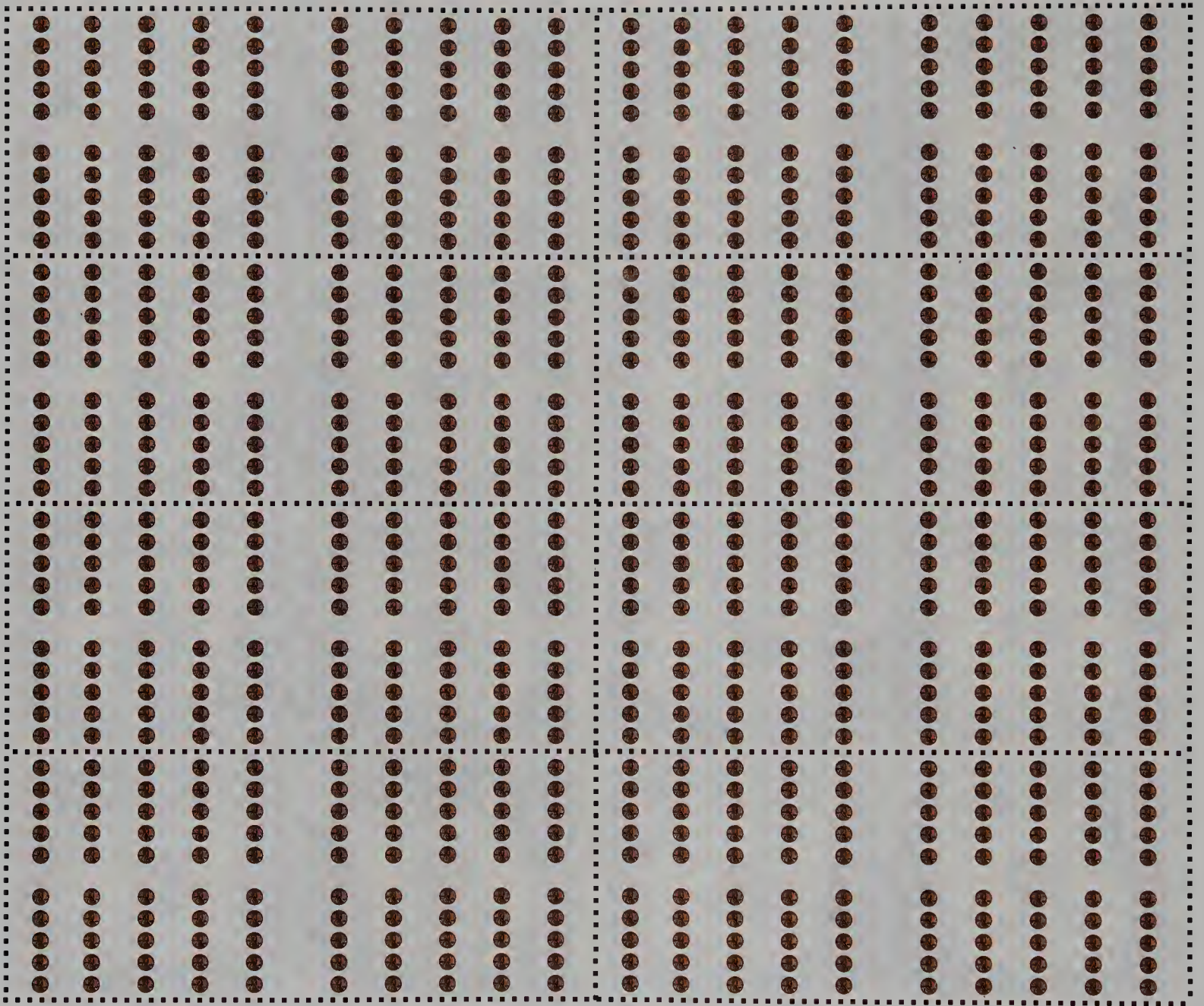


_____ cents + _____ cents = _____ cents

Class Activity

Cut out the dollars. Use them for buying fruits and vegetables.





Extra Practice

Each item is paid for with 1 dollar.

Write the number of pennies, nickels, or dimes you need to make change.

Then write the total change.

Spend				Total Change
1. 78¢				¢
2. 83¢				¢
3. 54¢				¢
4. 47¢				¢
5. 21¢				¢

- ➡ **6. On the Back** Choose an amount above. How did you find the change?
Write or draw to explain.

Name _____



How many cents?

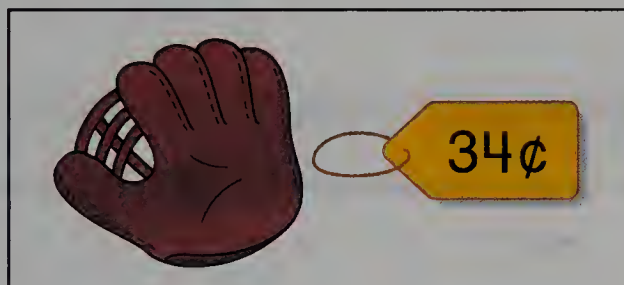
1. 
10 10 10 5 1

 ¢

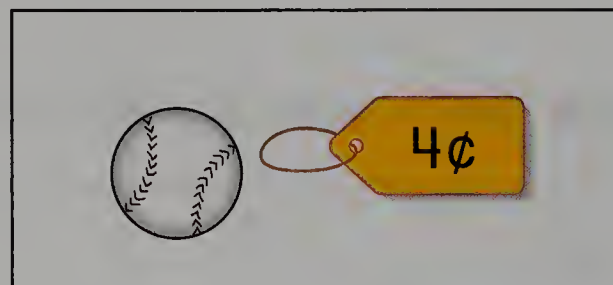
2. 

 ¢

How much altogether? Solve with sticks and circles.

3. 

+


 ¢

Add the numbers. Make a proof drawing with sticks and circles. Did you make a new ten?

4.
$$\begin{array}{r} 64 \\ + 23 \\ \hline \end{array}$$

New ten? yes ☐ no ☐

5.
$$\begin{array}{r} 16 \\ + 39 \\ \hline \end{array}$$

New ten? yes ☐ no ☐

6.
$$\begin{array}{r} 57 \\ + 26 \\ \hline \end{array}$$

New ten? yes ☐ no ☐

7.
$$\begin{array}{r} 72 \\ + 15 \\ \hline \end{array}$$

New ten? yes ☐ no ☐

Solve the story problems.

Show your work. Use drawings, numbers, or words.

8. Jamie bought an orange for 2 dimes, 1 nickel, and 4 pennies. How many cents did he pay?

 ¢

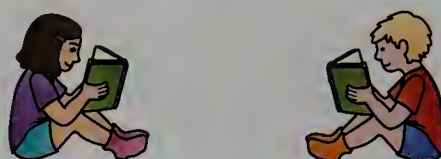
9. Ruby has 4 dimes, 2 nickels, and 7 pennies in her purse. How many cents does she have?

 ¢

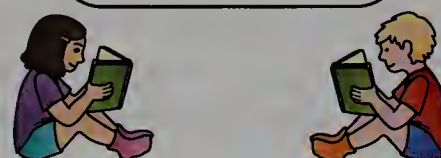
10. **Extended Response** Add 48 and 25. Did you make a new ten? Explain.



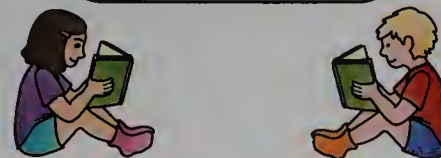
1. Rosa read 8 stories. Tim read 5. How many did they read in all?

 I read 8 stories. Rosa _____	 I read 5 stories. Tim _____	 In all _____
--	---	---

2. Rosa read 8 stories. Tim also read some stories. They read 13 stories in all. How many stories did Tim read?

 I read 8 stories. Rosa _____	 Tim _____	 We read 13 stories in all. In all _____
--	--	---

3. Rosa read some stories. Tim read 5 stories. They read 13 stories in all. How many stories did Rosa read?

 Rosa _____	 I read 5 stories. Tim _____	 We read 13 stories in all. In all _____
---	---	---



4. **On the Back** Write a teen story problem with an **unknown partner**. Solve it.

Name _____



Dear Family:

Your child has begun a unit that focuses on developing analytical skills in order to examine, classify, sort, and solve story problems.

Children will analyze and solve story problems with various unknowns, using counting on, the Make a Ten strategy, and numeric methods. Although stick-and-circle drawings continue to be acceptable, children should begin to use numeric methods (such as New Group Below) more frequently as they grow more comfortable with the concept of place value.

For the first time, children will be asked to solve story problems involving items that are different, yet fall under the same category. Recognizing "unlike terms" will sharpen children's logical awareness and classification skills, as well as expose them to more vocabulary. The following is an example of a category story problem:

At the petting zoo, Amanda fed four goats. Then she fed two lambs. How many animals did she feed in all?

Once children are familiar with category story problems, they will begin to differentiate between important information for solving the problem and irrelevant information. The following is an example of a story problem with extra information:

Jorge read six books and eight magazines last month. He read nine more books this month. How many books has Jorge read altogether?

As children learn to analyze story problems, they will also create their own problems using skills they acquire in each lesson. These original story problems will be shared and solved during the Story Problem Festival at the end of the unit.

If you have any questions, please do not hesitate to contact me.

Sincerely,
Your child's teacher



Estimada familia:

Su niño ha empezado una unidad que trata del desarrollo de destrezas analíticas para estudiar, clasificar, ordenar y resolver problemas.

Los niños analizarán y resolverán problemas con varias partes desconocidas. Pueden contar hacia adelante, usar la estrategia de hacer una decena o usar métodos numéricos. Aunque se aceptan los dibujos de círculos y palitos, los niños deben empezar a usar los métodos numéricos (como el de grupos nuevos abajo) con más frecuencia a medida que se sientan más cómodos con el concepto del valor posicional.

Por primera vez, se les pedirá que resuelvan problemas que tengan artículos diferentes, pero que pertenecen a la misma categoría. Identificar "términos no iguales" agudizará el conocimiento lógico de los niños y las destrezas de clasificación, además de que usarán vocabulario nuevo. El siguiente es un ejemplo de un problema de clasificación.

En el zoológico de mascotas, Amanda dio de comer a cuatro cabras. Después dio de comer a dos ovejas. ¿A cuántos animales dio de comer en total?

Una vez que los niños se han familiarizado con los problemas de clasificación empezarán a diferenciar entre la información que puede ayudarlos a responder lo que se les pregunta y la información que sobra. El siguiente es un ejemplo de un problema con información adicional:

Jorge leyó seis libros y ocho revistas el mes pasado. Leyó nueve libros más este mes. ¿Cuántos libros ha leído Jorge en total?

A medida que los niños aprendan a analizar problemas, también formularán sus propios problemas usando las destrezas que adquieran en cada lección. Los niños compartirán y resolverán estos problemas durante el festival de problemas al final de la unidad.

Si tiene alguna duda o comentario, por favor comuníquese conmigo.

Atentamente,
El maestro de su niño

Going Further

Fill in the blanks. Then cut out each card. Write and draw the answer on the back.



newspaper

Ty delivers

_____ newspapers every

Saturday. He delivers

_____ papers every

Sunday. How many papers

does Ty deliver in all?



book

Rachel read _____ pages
in her book last week.

This week she read
_____ pages. How
many pages did she
read in all?



penny

Mari had _____ pennies.

Then she got some more
pennies on her birthday.

Now she has _____

pennies. How many

pennies did she get on her
birthday?



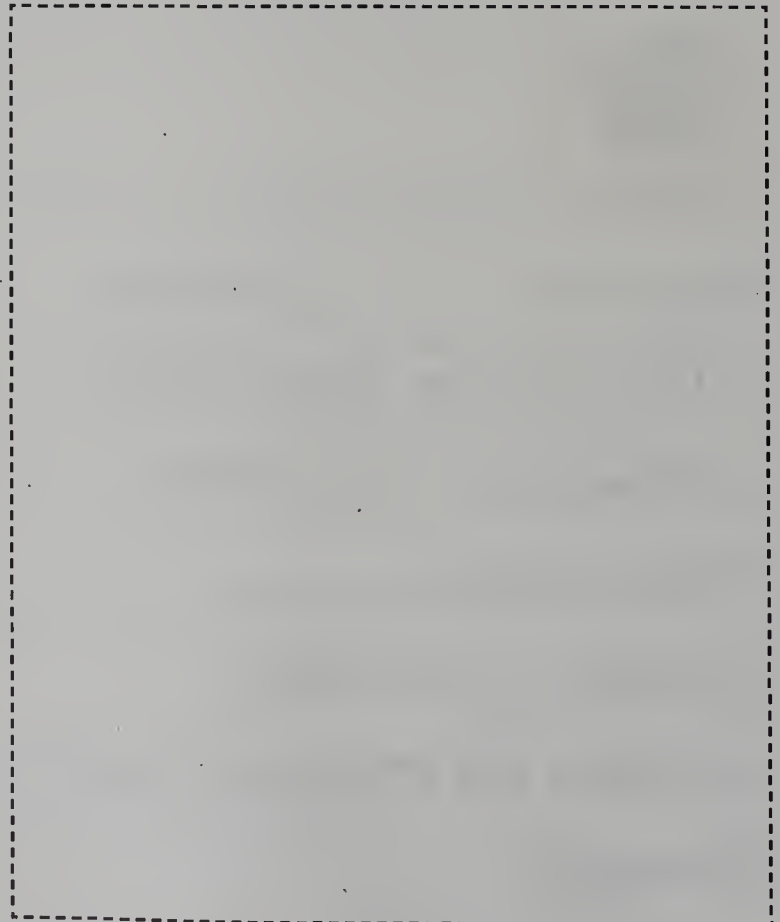
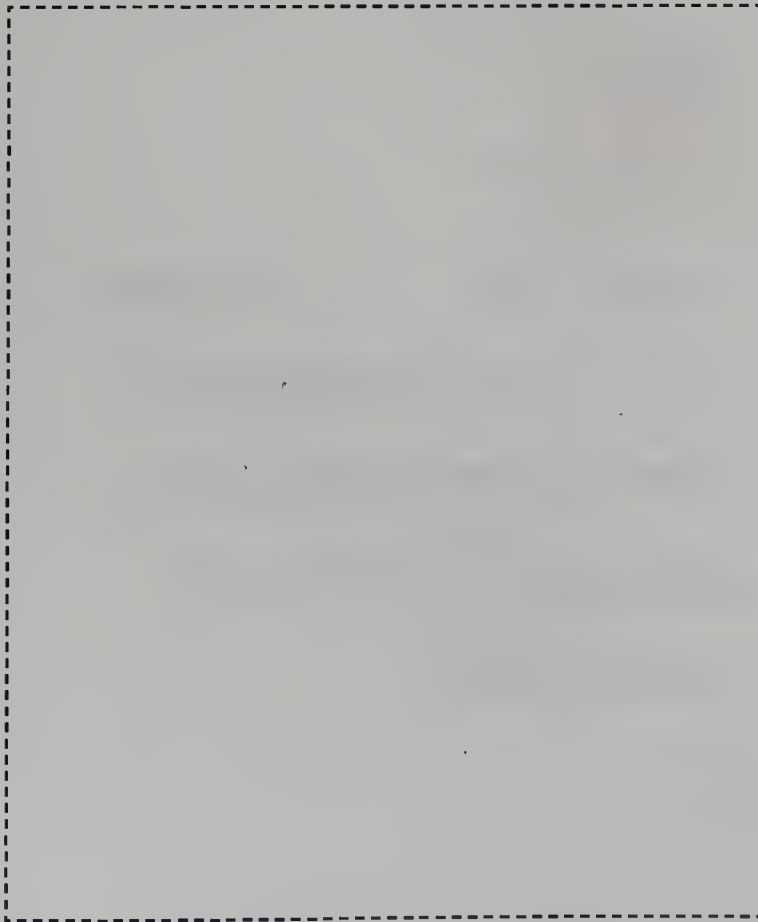
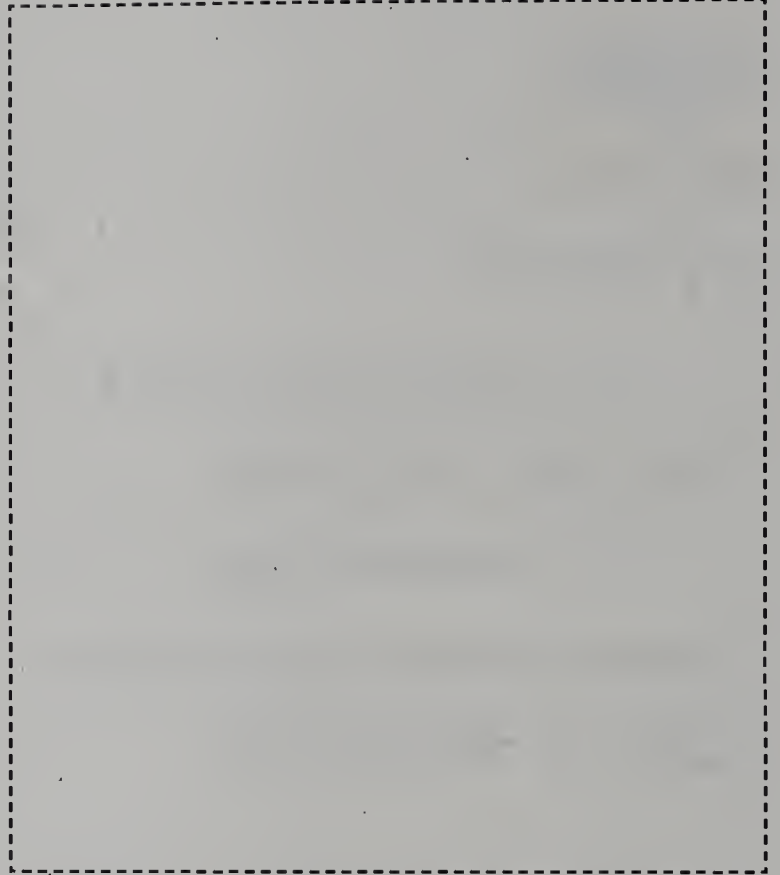
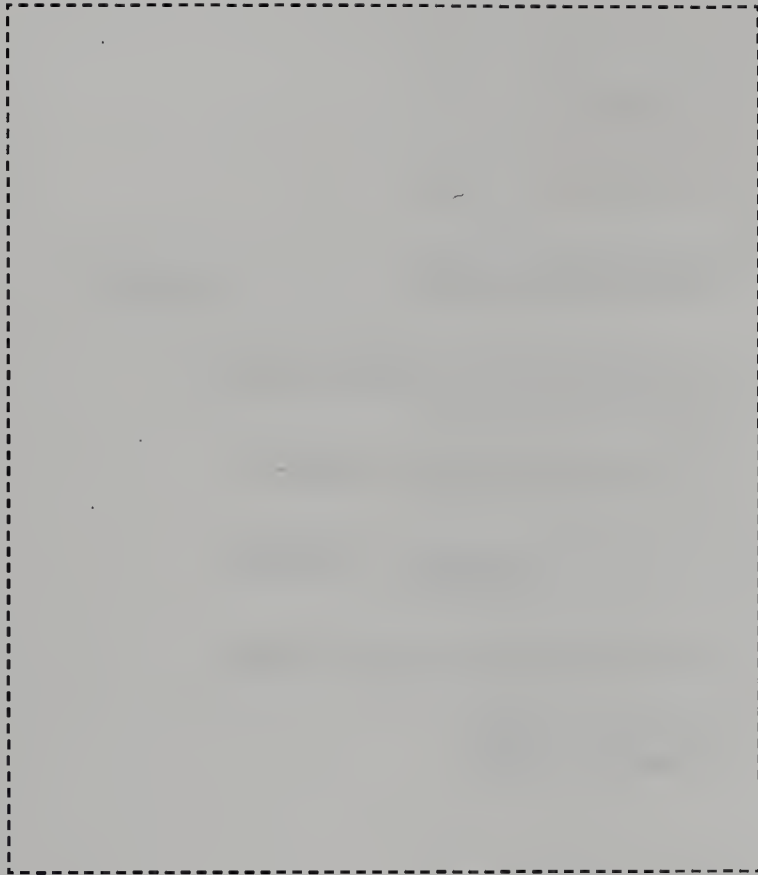
strawberry

Miguel has _____ berries.

_____ are strawberries.

The rest are blueberries.

How many berries are
blueberries?



Class Activity

Write 4 things that might be found in each drawer.

↔ Drinks	→	1. <u>Juice</u> 2. <u>Milk</u> 3. <u>Lemonade</u> 4. <u>Water</u>
1. ↔ Balls	→	1. _____ 2. _____ 3. _____ 4. _____
2. ↔ Toys	→	1. _____ 2. _____ 3. _____ 4. _____
3. ↔ Fruits	→	1. _____ 2. _____ 3. _____ 4. _____

Class Activity

Vocabulary

label

Fill each drawer with 4 things that belong together.

Then **label** the drawers.

1. Tulip _____

2. Daisy _____

3. Rose _____

4. Violet _____



 Flowers




1.

1. _____

2. _____

3. _____

4. _____



2.

1. _____

2. _____

3. _____

4. _____



3.

1. _____

2. _____

3. _____

4. _____





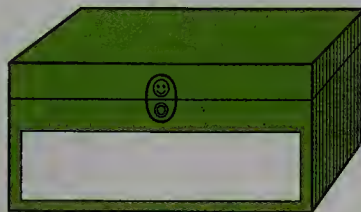
Class Activity

Vocabulary

label

unknown partner

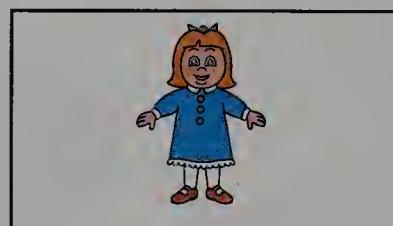
1. **Label** the boxes. Draw a line to each thing that belongs inside. Decide how many are in each box.



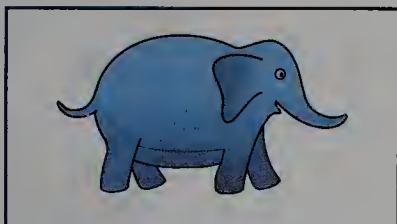
_____ Shorts



_____ Rakes



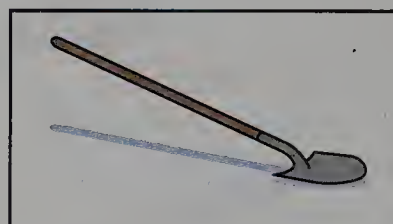
_____ Dolls



_____ Stuffed Animals



_____ Shirts



_____ Shovels

2. Write a story problem about one of the boxes you filled.

- ➔ 3. **On the Back** Write a story problem about another box.
Use an **unknown partner**.

Name _____

Handwriting practice lines consisting of solid top and bottom lines with a dashed midline for letter height guidance. There are 10 sets of these lines across the page.

Going Further

Vocabulary

label

Cut out the items below.

Glue the items that belong together in a Venn Diagram on another piece of paper.

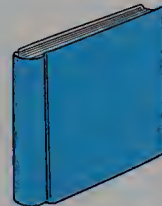
Label each group.



orange



football



book



computer



magazine



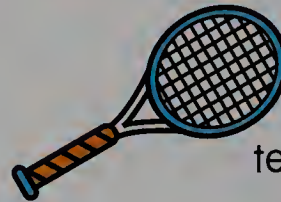
strawberry



soccer ball



calculator



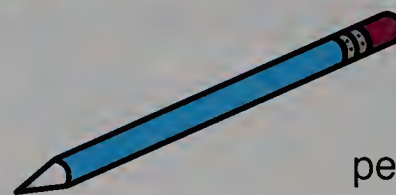
tennis racket



dictionary



melon



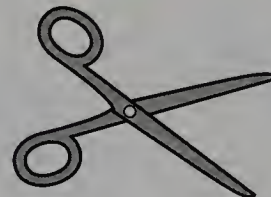
pencil



baseball bat



newspaper



scissors



banana



ruler



television



telephone



notebook



crayons

Going Further

1. Show different ways to get each number.

Ways to Get to 16

$$\square + \square + \square = 16$$

$$\square + \square + \square = 16$$

$$16 = \square + \square + \square + \square$$

$$16 = \square + \square - \square$$

Ways to Get to 13

$$\square + \square + \square = 13$$

$$\square + \square + \square = 13$$

$$13 = \square + \square + \square + \square$$

$$13 = \square + \square - \square$$

Ways to Get to 11

$$\square + \square + \square = 11$$

$$\square + \square + \square = 11$$

$$11 = \square + \square + \square + \square$$

$$11 = \square + \square - \square$$

Ways to Get to 18

$$\square + \square + \square = 18$$

$$\square + \square + \square = 18$$

$$18 = \square + \square + \square + \square$$

$$18 = \square + \square - \square$$



2. On the Back Write a story problem to go along with one of your equations. Solve it.

Name _____

Handwriting practice lines consisting of solid top and bottom lines with a dashed midline, repeated 10 times.

**Extra Practice****Vocabulary**

equation

Solve the **equations**.

Match your total to a letter in the box.

Write the matching letter over the exercise number at the bottom of the page.

50 is E	60 is R
84 is K	70 is O
49 is W	40 is A
98 is T	30 is G

1. $30 + 50 + 4 = \boxed{}$

2. $60 - 10 - 10 = \boxed{}$

3. $60 + 30 + 8 = \boxed{}$

4. $80 + 10 - 40 = \boxed{}$

5. $30 + 30 + 10 = \boxed{}$

6. $70 + 10 - 20 = \boxed{}$

7. $20 + 40 - 30 = \boxed{}$

8. $20 + 20 + 9 = \boxed{}$

9. $90 - 10 - 20 = \boxed{}$

What will I say when you finish?

$\underline{}$ $\underline{}$ $\underline{}$ $\underline{}$ $\underline{}$ $\underline{}$ $\underline{}$ $\underline{}$ $\underline{}$ **!**
 7. 9. 4. 2. 3. 8. 5. 6. 1.

**10. On the Back** Choose one of the equations on this page and write a story problem for it.

Name _____

Handwriting practice lines consisting of solid top and bottom lines with a dashed midline, repeated across the page.

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Class Activity

Solve the story problems.

Show your work. Use drawings, numbers, or words.

1. Today 8 boys, 7 girls, 2 men, and 3 women went camping. How many campers were there in all?

 _____
label

2. The campers took 60 sandwiches. They ate 20 for lunch and 30 for dinner. A raccoon ate 4 more. How many sandwiches are left?

 _____
label

3. They saw 12 deer, 7 chipmunks, 10 squirrels, and 2 moose. How many animals did they see altogether?

 _____
label

-  **4. On the Back** Write and solve your group's story problem about the camping trip.

Name _____

Handwriting practice lines consisting of solid top and bottom lines with a dashed middle line. There are 10 sets of these lines across the page.

Extra Practice**Vocabulary****outsider**Cross out the **outsider**.

Write a name for each group on the line below.

1.

apple
eye
grape
plum
peach

2.

baseball
soccer
tennis
nose
football

3.

ear
fish
dog
bird
cat

4.

shoe
pants
socks
shirt
mouth

In box 5, write the outsiders from boxes 1-4.

5.

Name this group _____

Solve the story problem below.

Cross out the information you don't need.

6. My school has 14 black telephones,
7 white telephones, and 15 computers.
How many telephones are in my school? _____



7. **On the Back** Write your own story problem with extra information.

Name _____

Handwriting practice lines consisting of solid top and bottom lines with a dashed midline for letter height guidance. There are 10 sets of these lines across the page.

Class Activity

1. Measure the Fahrenheit and Celsius temperatures. Record the temperatures in the table.

Sample	Temperature	
	$^{\circ}\text{F}$	$^{\circ}\text{C}$
Ice water		
Cold tap water		
Hot tap water		



2. Write 2 statements that compare the temperatures you measured.

3. Make a prediction. How long will take for the ice water temperature to change to 68°F ?

My prediction:

4. Check your prediction.
Record the temperature every 15 minutes in this table.

5. How long did it take?

6. Compare your prediction to the actual time.

Time (min)	Temperature ($^{\circ}\text{F}$)

Class Activity

Use the Number Path to skip count backward.

1. Start at 40. Skip count backward by 10s to 10.

Write the numbers. _____

2. How many times did you count backward by 10 to go from 40 to 10? _____

3. Start at 70. Skip count backward by 10s to 10.

Write the numbers.

4. How many times did you count backward by 10 to go from 70 to 10? _____

5. Predict how many times you will count backward by 10 from 60 to 10. _____

Check your prediction.

Write the numbers. Then count the times.

Compare your prediction and your count.

6. Start at 50. Skip count backward by 5s to 20.

Write the numbers.

7. Start at 50. Skip count backward by 10s to 20.

Write the numbers. _____

8. Why do you count more numbers to skip count by 5s than to skip count by 10s?

Solve.

1. $9 - 3 + 4 =$

2. $20 + 40 + 6 =$

Solve the story problems.

Show your work. Use drawings, numbers, or words.

3. Yesterday, Dave picked 25 cherries. Today he picked some more. He picked 37 cherries in all. How many cherries did he pick today?



_____ label

4. There were 23 deer. Some deer ran away. Now there are 16 deer left. How many deer ran away?



_____ label

Solve the story problems.

Show your work. Use drawings, numbers, or words.

5. The store sold 45 drills and 23 saws. How many tools did the store sell?



saw

_____ label

6. Our yard has 29 trees. 8 are maple trees, and the rest are oak trees. How many are oak trees?



tree

_____ label

7. Mark washed 10 blue shirts, 8 white socks, and 6 red shirts. How many shirts did he wash?



shirt

_____ label

Solve the story problems.

Show your work. Use drawings, numbers, or words.

- 8.** The balloon man had 2 red balloons, 7 yellow balloons, and 3 orange balloons. How many balloons did he have in all?



label

- 9.** There were 9 people on the bus. Then 6 people got off and 2 people got on. How many people are on the bus now?



label

10. Extended Response Write a story problem. Solve it.

Handwriting practice lines for the extended response section. Each row consists of a solid top line, a dashed middle line, and a solid bottom line. There are 10 such rows available for writing.

 Going Further

Trace around your hands and your feet.

Cut out your paper hands and feet.

Use them to measure objects in the room.

1. Compare your hand and foot. Which is longer? _____
2. Find two things longer than your hand. _____

3. Find two things about the same length as your foot. _____

4. Take 3 giant steps. About how many of your hand lengths are your 3 giant steps? _____
5. About how many of your foot lengths are your 3 giant steps? _____

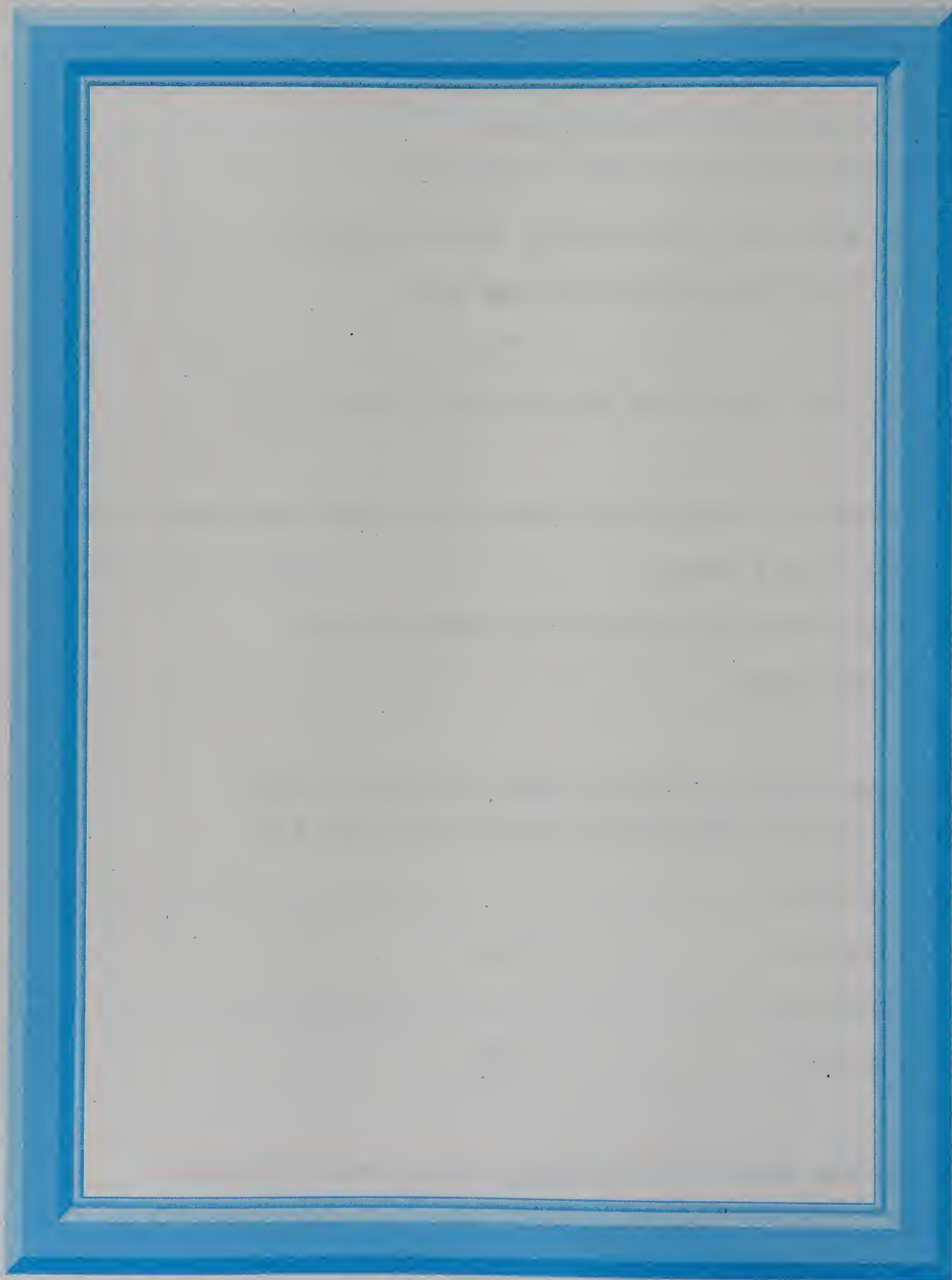
Find two things to measure. Write the name of each thing and how many of your hands or feet long it is.

6. I measured _____.
It is about _____ long.
7. I measured _____.
It is about _____ long.



8. **On the Back** Draw a picture of your pencil. Then use a paper clip to measure it. About how many paper clips long is your pencil?

Name _____





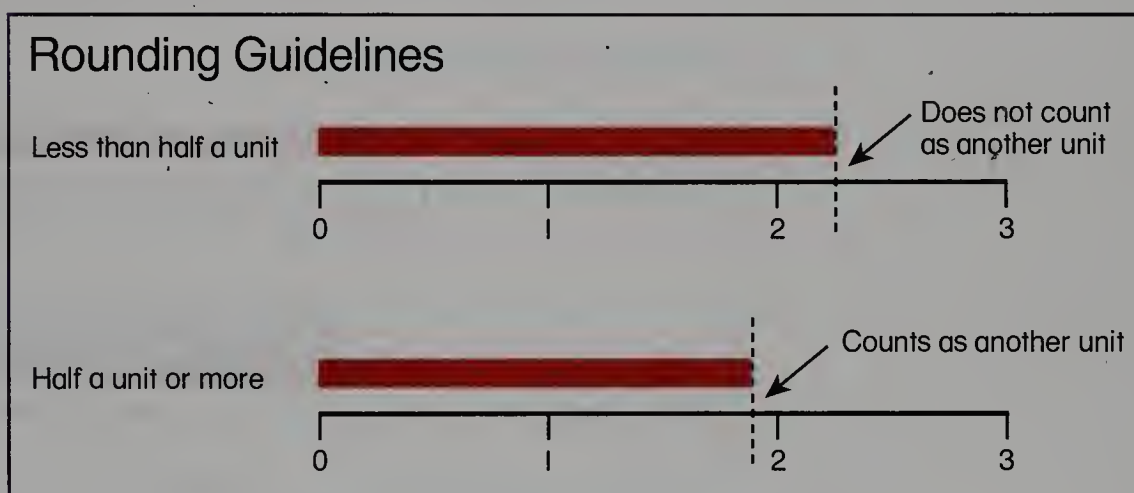
Dear Family:

Your child has begun a math unit that focuses on measurement. Measurement is an important mathematical skill, and it is one that is easily applied to daily life.

The children will start measuring with nonstandard units such as colored strips of paper, toothpicks, hands, and feet. Using these items to measure helps children understand the concepts of measurement and units.

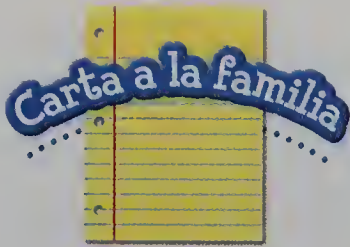
The class will move quickly from using nonstandard units to measuring with both inch and centimeter rulers. Children are encouraged to estimate lengths before they measure them.

Another concept introduced in this unit is rounding. The children practice rounding to the nearest unit or number.



You can help your child practice estimating, measuring, and rounding at home. If you have any questions, please contact me.

Sincerely,
Your child's teacher



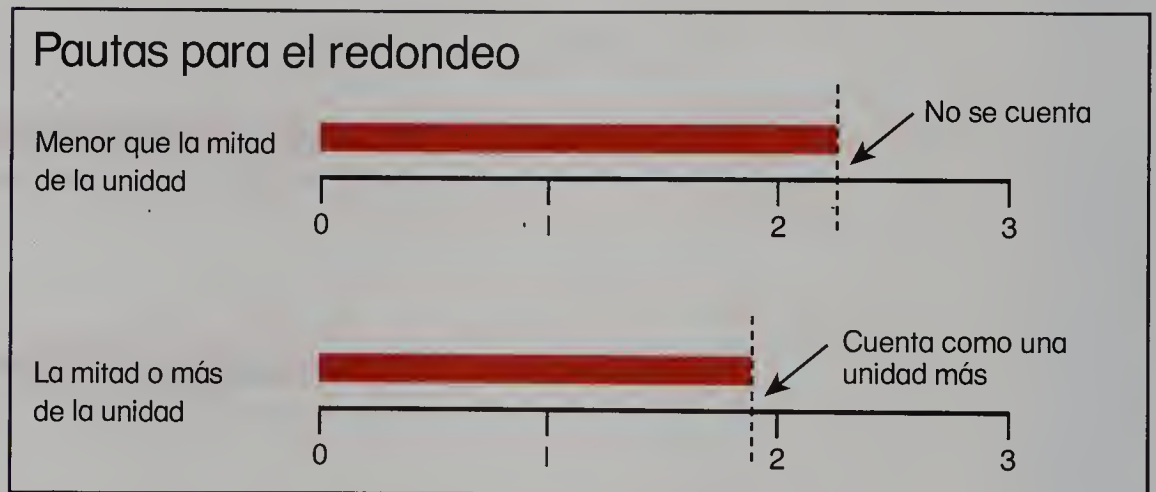
Estimada familia:

Su niño ha empezado una unidad que trata de la medición. La medición es una destreza matemática importante y se aplica fácilmente en la vida diaria.

Los niños empezarán a medir con unidades de medida no usuales, como tiras de papel, palillos de dientes, manos y pies. Estos objetos ayudan a los niños a comprender el concepto de medición y de las unidades.

La clase pasará rápidamente de usar unidades no usuales a medir con reglas de pulgadas y centímetros. Se anima a los niños a estimar longitudes antes de medirlas.

Otro concepto que se presenta en esta unidad es el redondeo. Los niños practican el redondeo a la unidad o número más cercano.



Usted puede ayudar a su niño a practicar la estimación, la medición y el redondeo en casa. Si tiene alguna duda, por favor comuníquese conmigo.

*Atentamente,
El maestro de su niño*

Class Activity
Vocabulary
 measure
 inch (in.)
 estimate

1. **Measure** each pencil. Round to the nearest **inch**.


 about inches

 about inches

 about inches

2. **Estimate** how many inches.

Then measure and write the length.


 Estimate: about inches

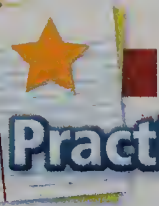
 Measure: inches

 Estimate: about inches

 Measure: inches

 Estimate: about inches

 Measure: inches



Extra Practice

Vocabulary

length
estimate
measure

Estimate each line **length**.

Then measure each line with an inch ruler.

1.



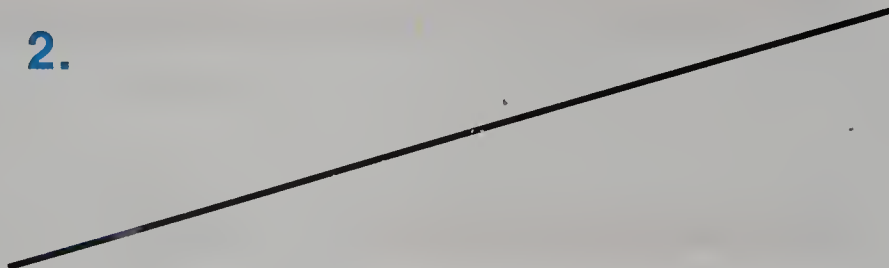
Estimate

in.

Measure

in.

2.



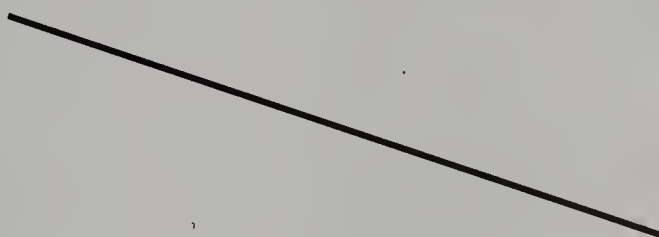
Estimate

in.

Measure

in.

3.



Estimate

in.

Measure

in.

4.



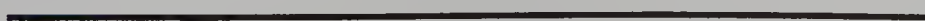
Estimate

in.

Measure

in.

5.



Estimate

in.

Measure

in.

6.



Estimate

in.

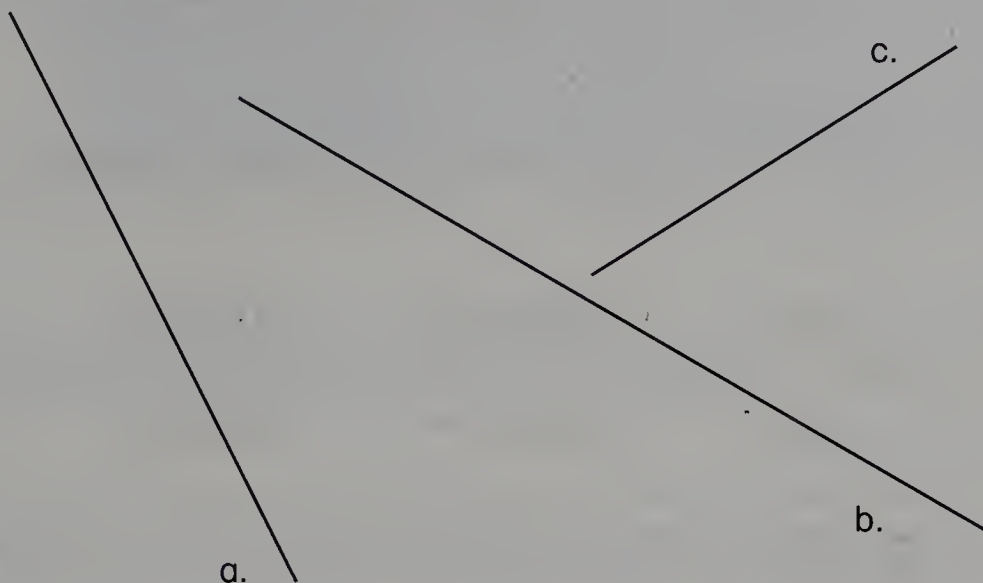
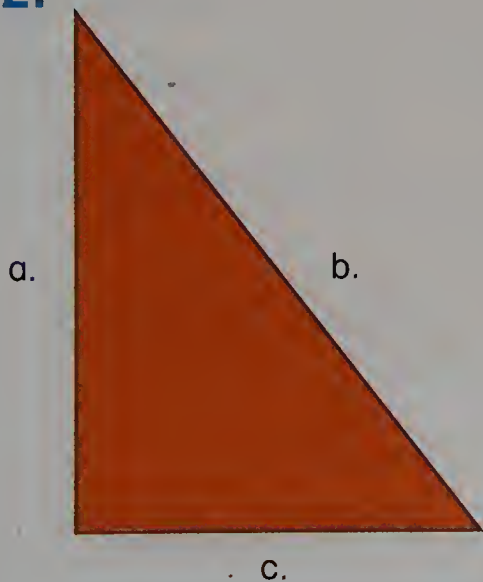
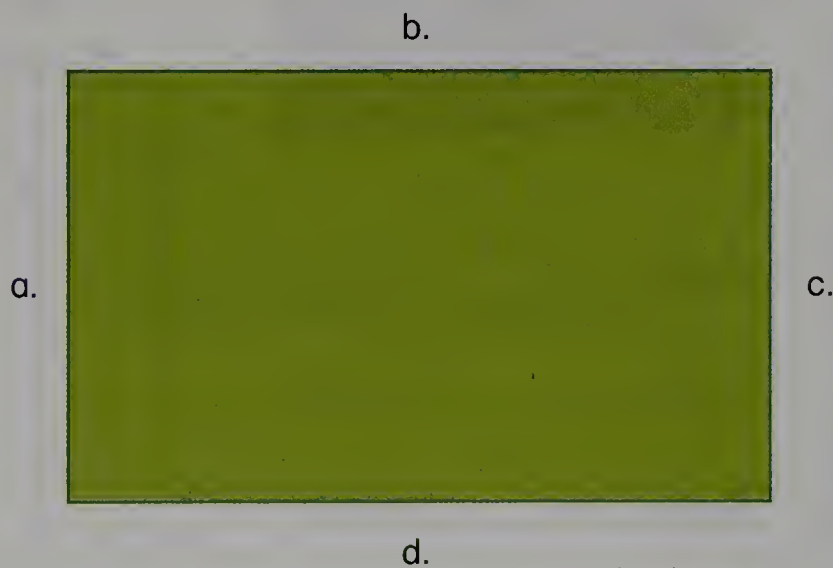
Measure

in.

Class Activity
Vocabulary

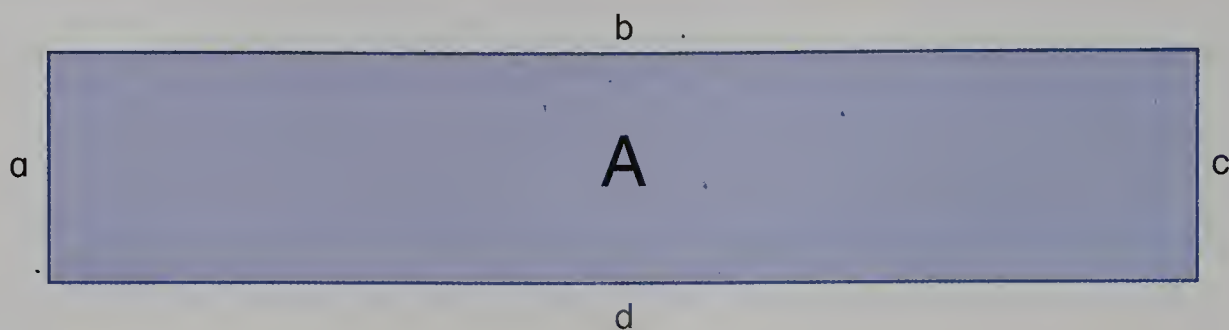
inch (in.)

Measure each line or shape.

Round to the nearest **inch**.**1.**a. about in.b. about in.c. about in.**2.**a. about in.b. about in.c. about in.**3.**a. about in.b. about in.c. about in.d. about in.

Measure the sides of each box with an inch ruler.

1.



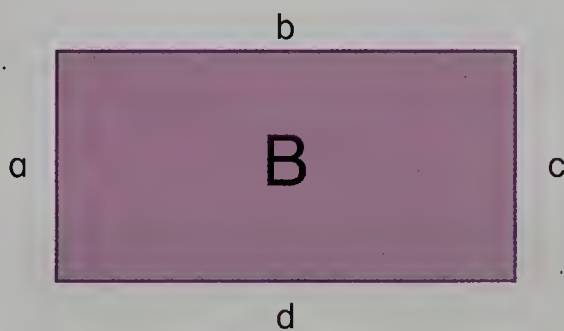
Side a = _____ inch

Side b = _____ inches

Side c = _____ inch

Side d = _____ inches

2.



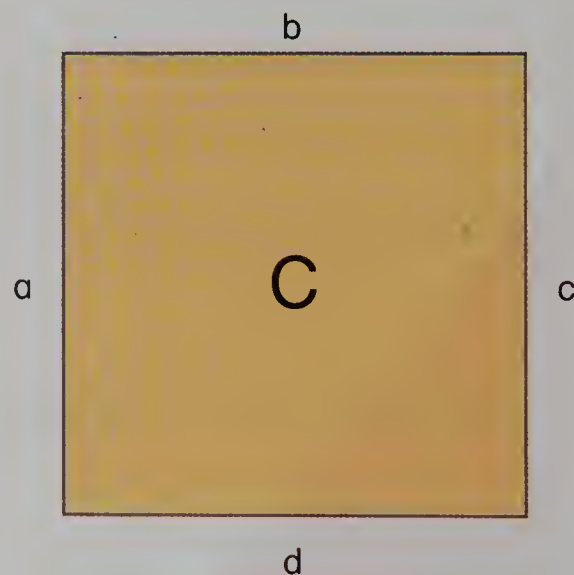
Side a = _____ inch

Side b = _____ inches

Side c = _____ inch

Side d = _____ inches

3.



Side a = _____ inches

Side b = _____ inches

Side c = _____ inches

Side d = _____ inches

4. Which shape is a square?

Ring the letter below.

A

B

C

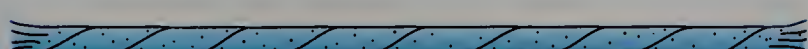
Class Activity
Vocabulary

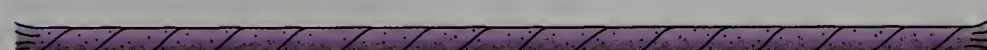
measure
centimeter (cm)
estimate

Measure each piece of yarn to the nearest **centimeter**.

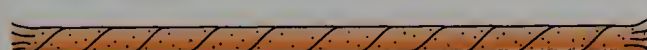
1.  about cm

2.  about cm

3.  about cm

4.  about cm

Estimate how many centimeters.
Then measure and write the length.

5. 

Estimate: about cm Measure: cm

6. 

Estimate: about cm Measure: cm

7. 

Estimate: about cm Measure: cm

**Class Activity**

Object	Estimate	Centimeters
1		
2		
3		
4		
5		
6		
7		
8		
9		

**Extra Practice****Vocabulary**

measure

centimeter (cm)

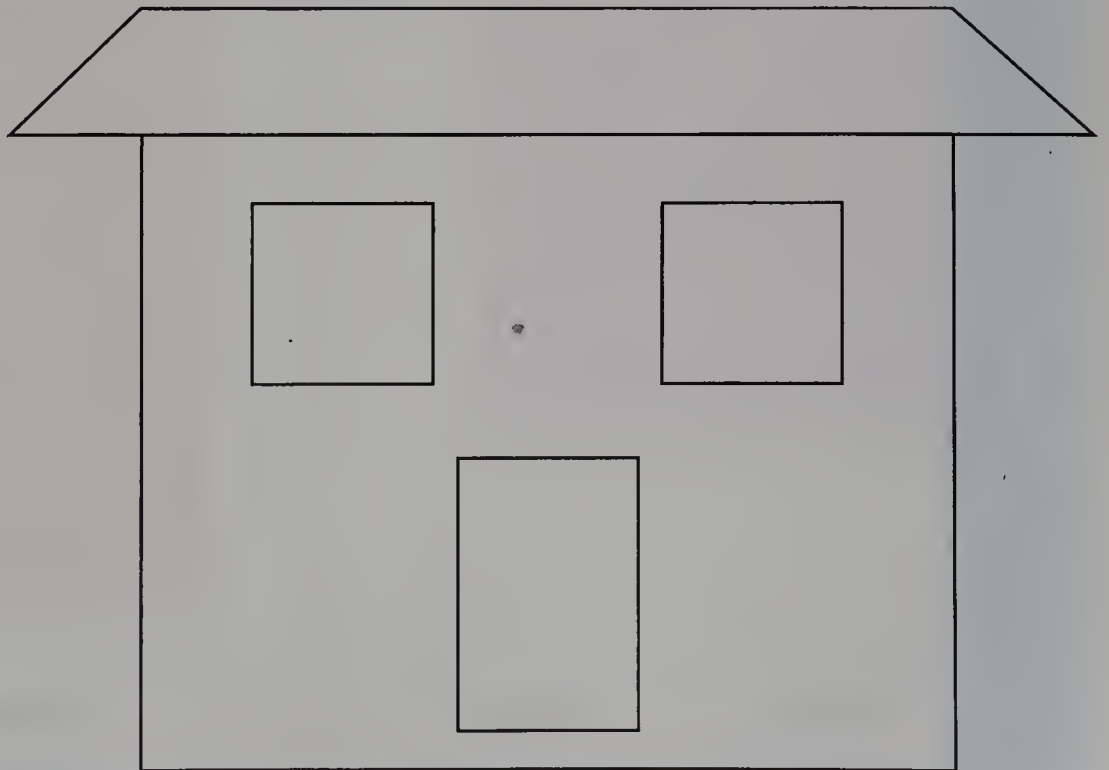
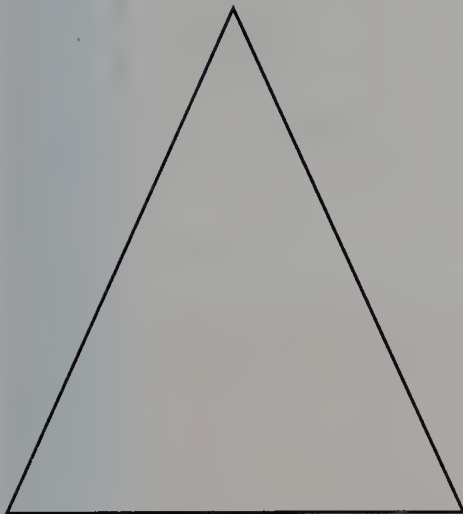
Measure the sides of the shapes. Write the numbers of **centimeters** next to the sides.
Then color the shapes.

Color the triangles  yellow.

Color the rectangles  red.

Color the trapezoids  orange.

Color the squares  blue.



 **On the Back** Draw a picture with 3 different shapes.



Class Activity

Vocabulary

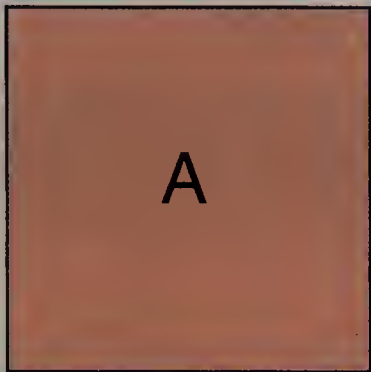
length

width

rectangle

Measure the **length** and **width** in centimeters of each **rectangle** below.

1.



A

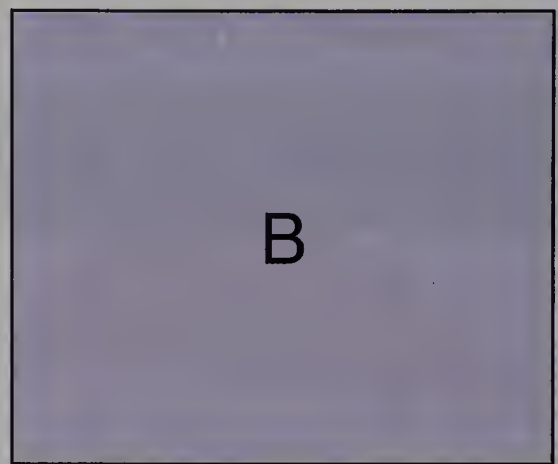
length

cm

width

cm

2.



B

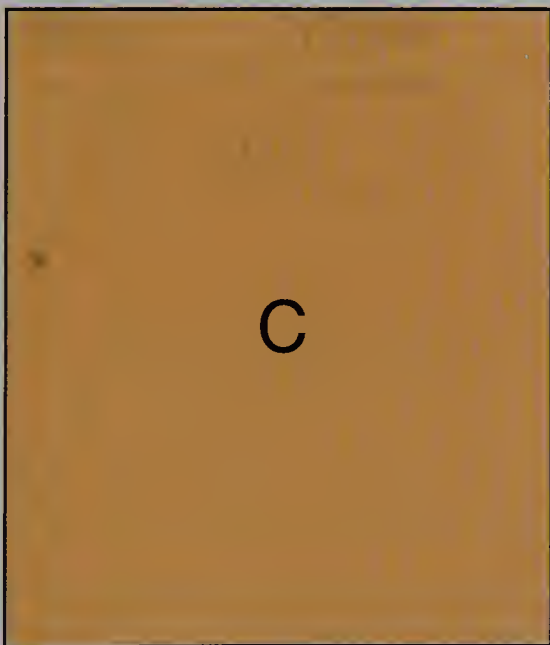
length

cm

width

cm

3.



C

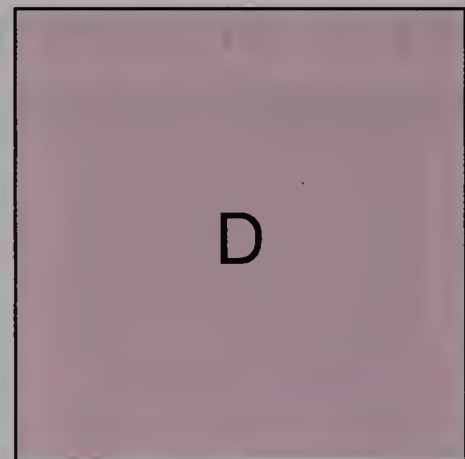
length

cm

width

cm

4.



D

length

cm

width

cm

1. Write the **length** and **width** of each rectangle you measured.
Is it a square? Write yes or no in the last space.

Rectangle	Length	Width	Square?
A			
B			
C			
D			

2. Draw your own square below.
Write its measurements.

length



cm

width



cm

Going Further

Vocabulary

centimeter (cm)

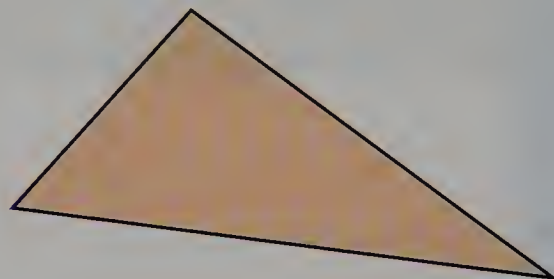
Measure each side with a **centimeter** ruler.
Write an equation to find the distance around each shape.

1.



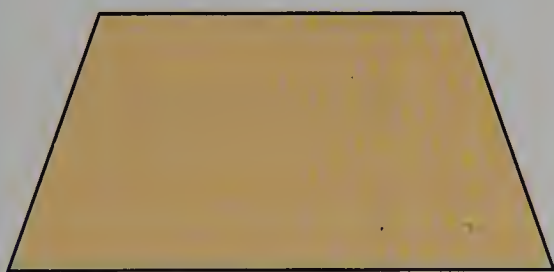
$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \boxed{\quad} \text{ cm}$$

2.



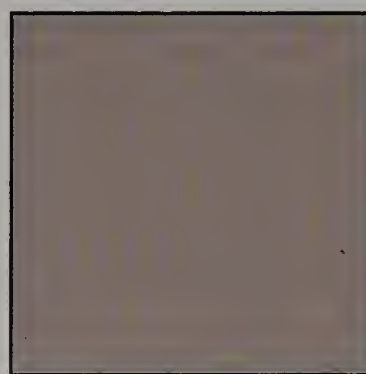
$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \boxed{\quad} \text{ cm}$$

3.



$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \boxed{\quad} \text{ cm}$$

4.

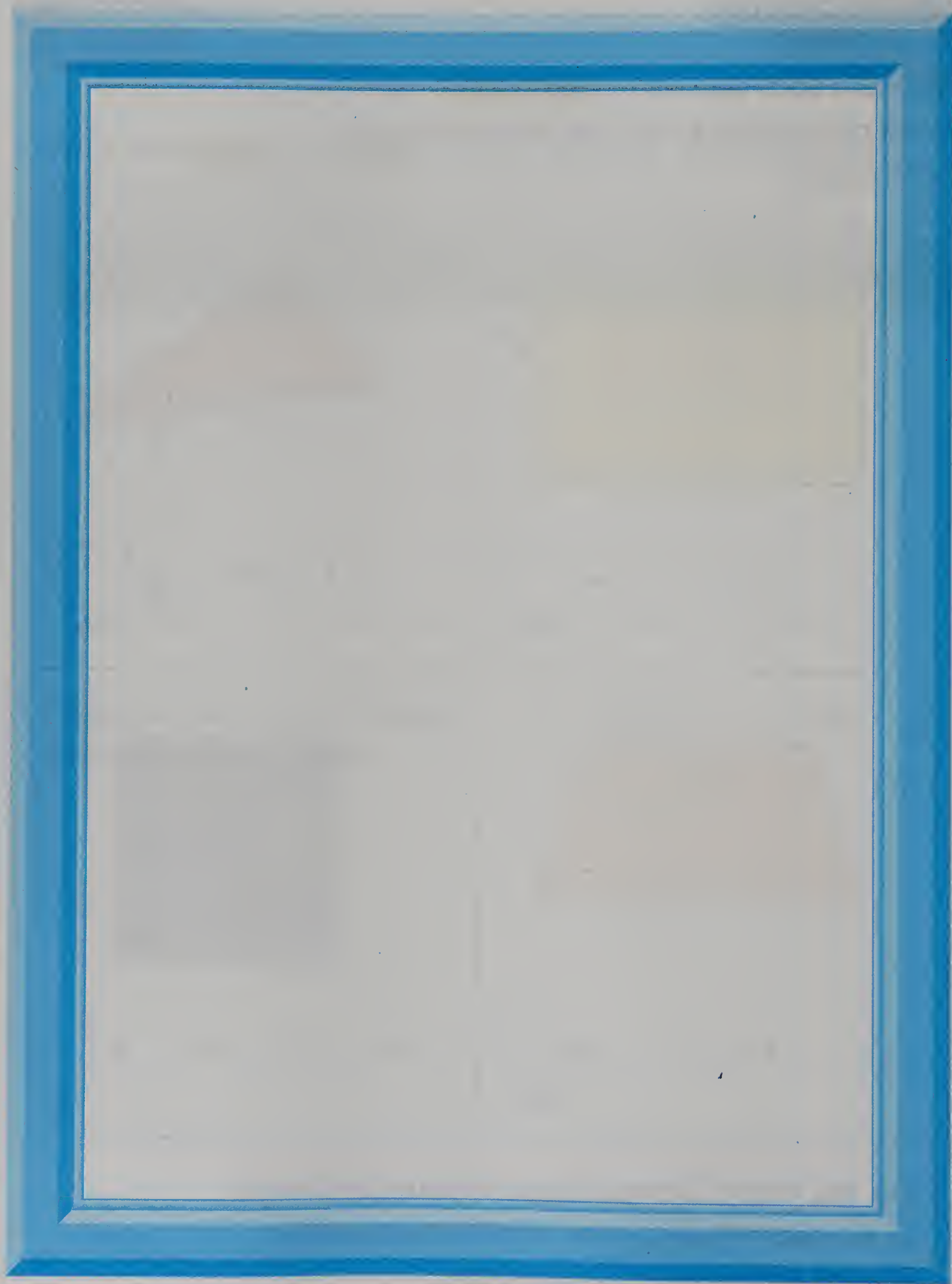


$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \boxed{\quad} \text{ cm}$$



5. On the Back Draw a shape. Measure each side to the nearest centimeter. Use the measures to find the distance around the shape.

Name _____



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Class Activity
Vocabulary

inch (in.)

centimeter (cm)

Measure objects in your classroom.

Measure in both **inches** and **centimeters**.

Round the numbers.

Object	Centimeters	Inches
Book		
Pencil		
Eraser		

Going Further

Vocabulary

measure
unit

1. **Measure** your object with 3 different **units**.

Write the number and unit.

Object _____

Measure: about _____
unit

Measure: about _____
unit

Measure: about _____
unit

2. Draw a picture of your object.

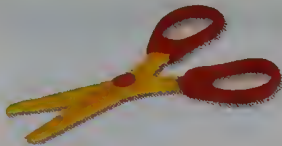
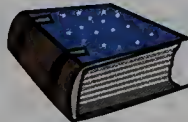
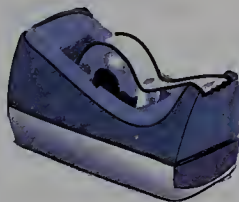


Class Activity
Vocabulary

pound

Use a balance scale and a 1-**pound** weight.

Weigh each object. Put an X in the matching box.

Object	Less than 1 pound	About 1 pound	More than 1 pound
			
			
			
			
			
			

Vocabulary**liter**

Use a 1-liter bottle and water. Measure how much each object holds. Put an X in the matching box. Find more objects to measure.

Object	Holds less than 1 liter	Holds about 1 liter	Holds more than 1 liter
Cup			
Pitcher			
Bucket			

Class Activity

Vocabulary

estimate

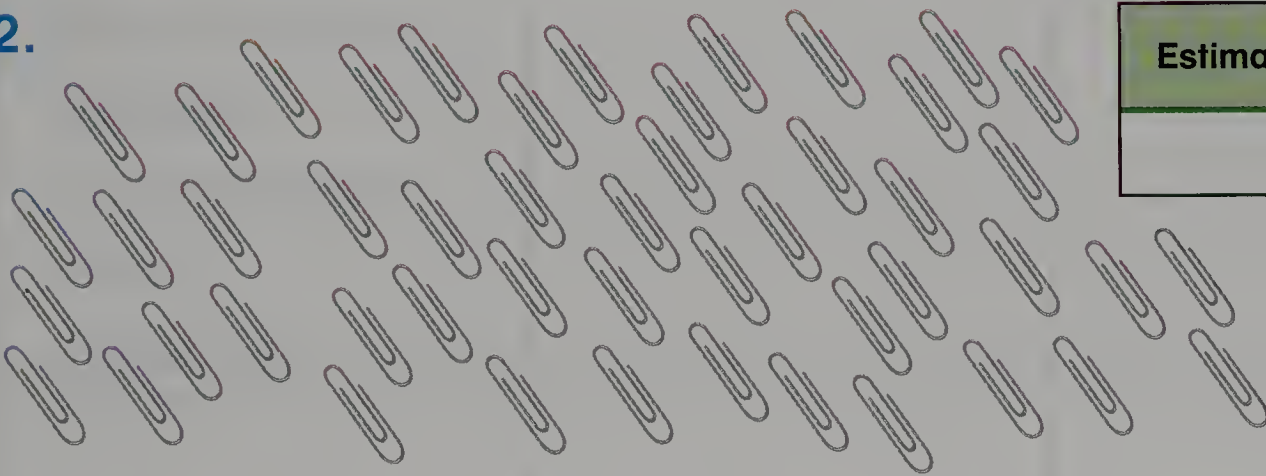
Ring one group of ten. **Estimate** about how many in all. Count to check.

1.



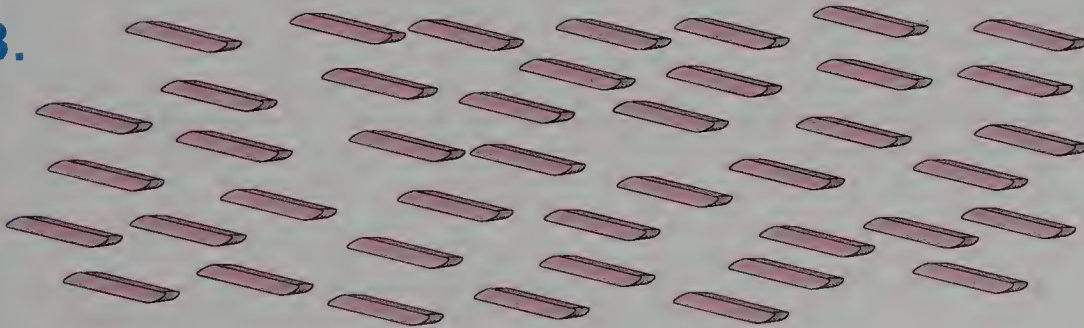
Estimate	Actual Count

2.



Estimate	Actual Count

3.



Estimate	Actual Count

4.



Estimate	Actual Count

Class Activity

Find groups of objects in your classroom.
Make an estimate. Count to check.

Object	Estimate	Actual Count

Estimate which object weighs more. Write or draw your estimate.

Use a balance scale to **measure**. Record or draw your measurement.

Which Weighs More?

Objects	Estimate	Measure
Book Box of crayons		
Scissors Tape dispenser		
Pencil Paper clip		

Vocabulary

estimate
holds more
measure

Estimate which **holds more**. Write or draw your estimate.

Measure. Fill each container with cups of sand or water.

Record or draw the number of cups.

Which Holds More?

Containers	Estimate	Measure
Mug Pitcher		
Milk carton Bowl		
Teacup Bucket		

Unit Test

Estimate how many inches.

Then measure and write the length.



Estimate: about inches

Measure: inches



Estimate: about inches

Measure: inches



Estimate: about inches

Measure: inches



Estimate: about inches

Measure: inches

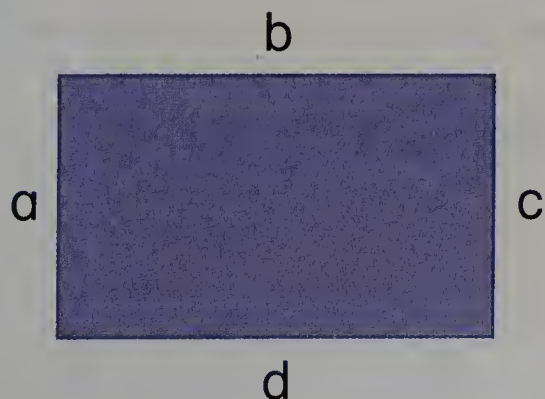


Estimate: about inches

Measure: inches

Measure the shape. Round to the nearest inch.

6.



Side a is about ____ in.

Side b is about ____ in.

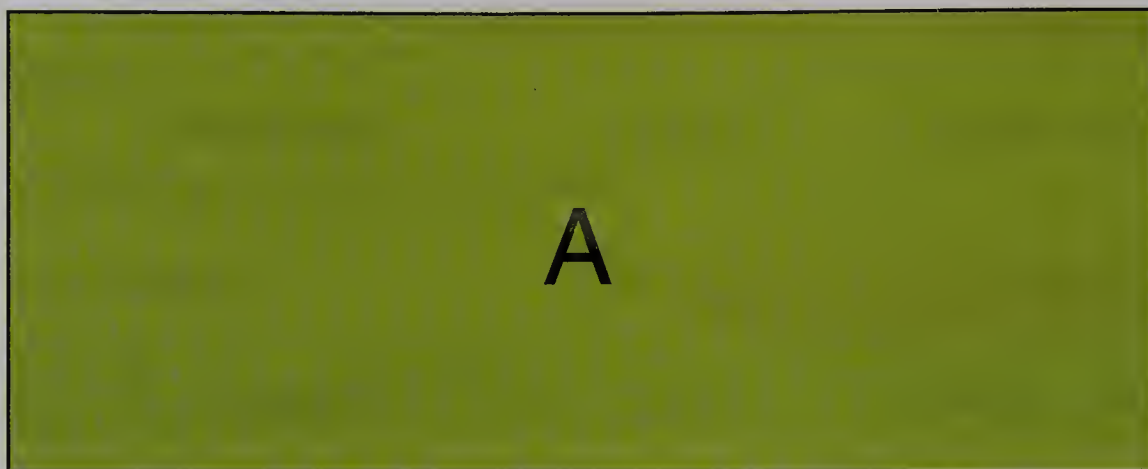
Side c is about ____ in.

Side d is about ____ in.

Use an inch ruler.

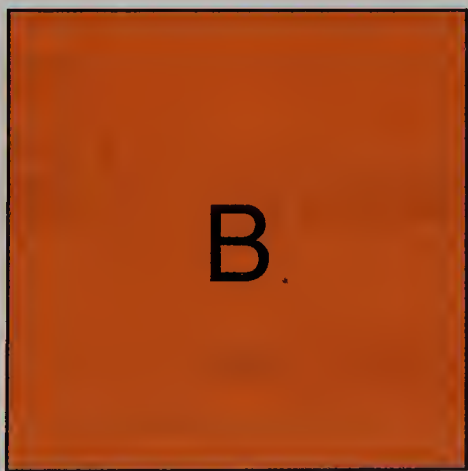
Measure the length and width of each rectangle.

7.



length = ____ inches width = ____ inches

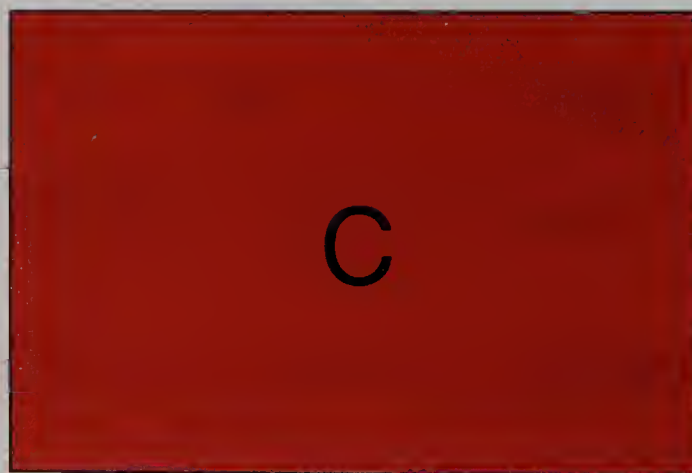
8.



length = ____ inches

width = ____ inches

9.



length = ____ inches

width = ____ inches

10. Which shape is a square? Look at the shapes A, B, and C above. Ring the letter below.

A

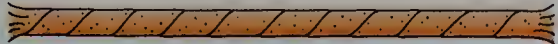
B

C

Unit Test

Estimate how many centimeters.

Then measure and write the length.

11. 

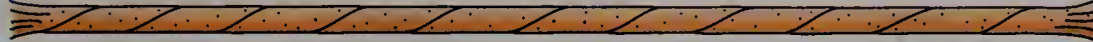
Estimate: about cm

Measure: cm

12. 

Estimate: about cm

Measure: cm

13. 

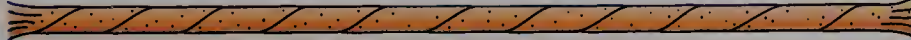
Estimate: about cm

Measure: cm

14. 

Estimate: about cm

Measure: cm

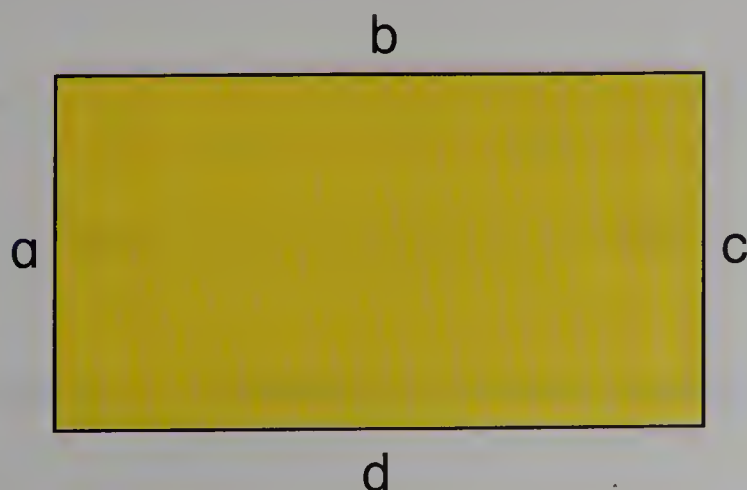
15. 

Estimate: about cm

Measure: cm

Measure each side. Round to the nearest centimeter.

16.



Side a is about _____ cm.

Side b is about _____ cm.

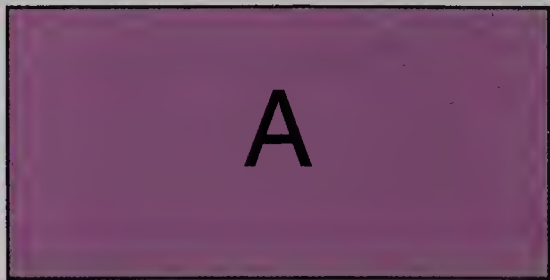
Side c is about _____ cm.

Side d is about _____ cm.

Use a centimeter ruler.

Measure the length and width of each rectangle.

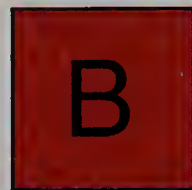
17.



length = _____ cm

width = _____ cm

18.



length = _____ cm

width = _____ cm

19. Which shape is a square? Look at the shapes A and B above.
Ring the letter below.

A B

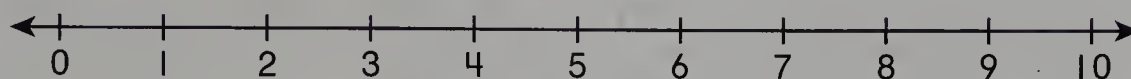
20. **Extended Response** How can you measure to find a square? Explain.

Class Activity
Vocabulary

number line

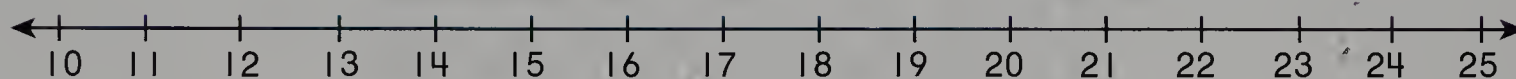
Use the **number line**.

Write the missing numbers.



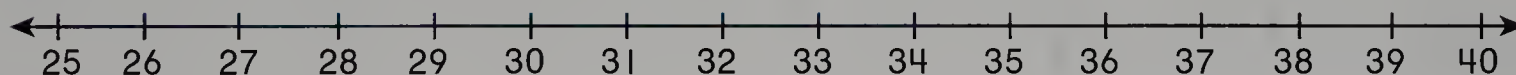
1. 1, _____, _____, 4, _____, _____, _____, 8

2. 3, 4, _____, _____, _____, _____, _____, 10



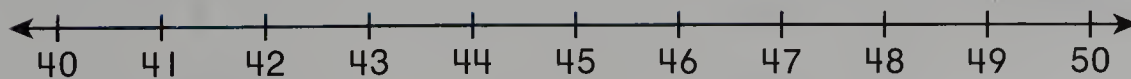
3. 10, 11, _____, 13, 14, _____, 16

4. 19, _____, 21, _____, _____, _____



5. 26, _____, 28, _____, _____

6. _____, _____, _____, _____, 37



7. 46, _____, _____, _____, 50

8. _____, 43, _____, _____, _____

Class Activity
Vocabulary**skip count****Skip count** by 2s.

Write the missing numbers.

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

1. 2, _____, _____, 8

2. 8, _____, _____, 14

3. 22, _____, _____, 28

4. 54, 56, _____, _____, 62

5. 76, _____, _____, 82, _____, _____

6. 16, _____, _____, _____, _____, 26

7. 48, _____, _____, 54, 56, _____, _____

8. 82, 84, _____, _____, 90, _____, _____

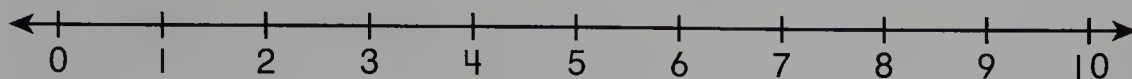
Class Activity

Vocabulary

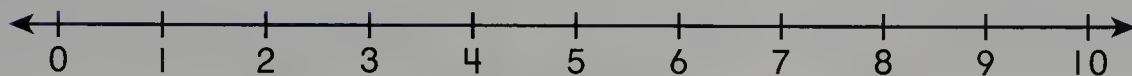
add

Use the number line to **add**.

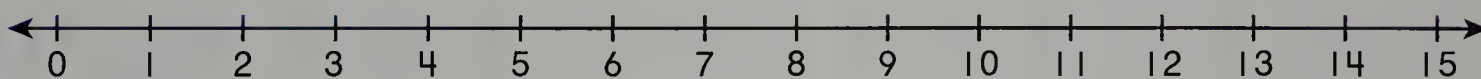
Draw arrows. Solve.



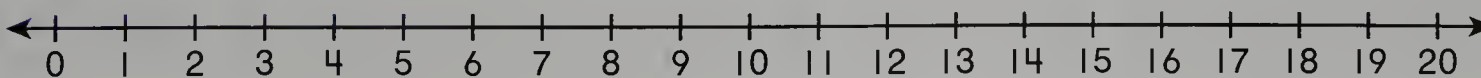
1. $5 + 2 = \underline{\hspace{2cm}}$



2. $3 + 7 = \underline{\hspace{2cm}}$



3. $8 + 6 = \underline{\hspace{2cm}}$

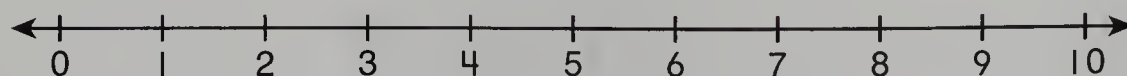


4. $\underline{\hspace{2cm}} = 8 + 9$

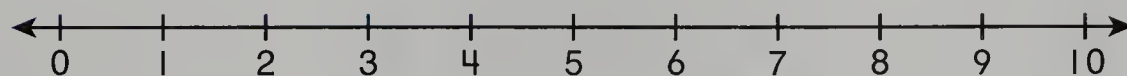
Class Activity
Vocabulary**subtract**

Use the number line to **subtract**.

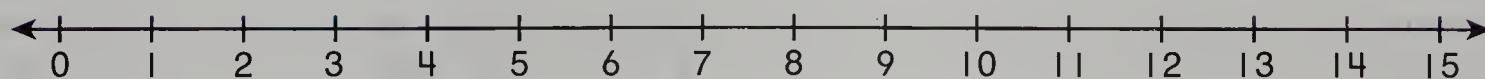
Draw arrows. Solve.



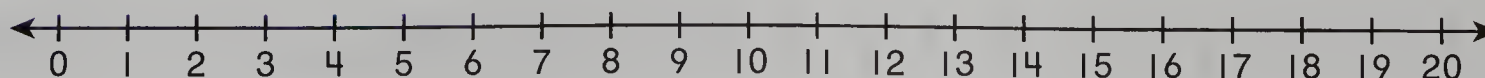
1. $10 - 3 = \underline{\quad}$



2. $8 - 4 = \underline{\quad}$



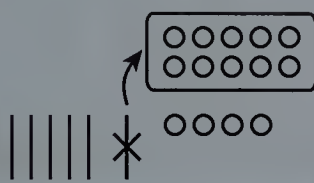
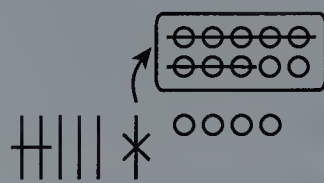
3. $14 - 6 = \underline{\quad}$



4. $\underline{\quad} = 18 - 9$

Class Activity
Vocabulary**Ungroup First Method**

Read and discuss the example below.

Step 1	Step 2	Step 3
$\begin{array}{r} 64 \\ - 28 \\ \hline \end{array}$	$\begin{array}{r} 5 \ 14 \\ \cancel{6} \cancel{4} \\ - 28 \\ \hline \end{array}$	$\begin{array}{r} 5 \ 14 \\ \cancel{6} \cancel{4} \\ - 28 \\ \hline 36 \end{array}$
		

Subtract. Use the **Ungroup First Method**.

Make a proof drawing to show your work.

1.
$$\begin{array}{r} 52 \\ - 29 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 65 \\ - 36 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 83 \\ - 39 \\ \hline \end{array}$$

Class Activity

Subtract.

$$\begin{array}{r} 1. \quad 75 \\ - 47 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 54 \\ - 18 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 94 \\ - 36 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 66 \\ - 34 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 85 \\ - 58 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 89 \\ - 69 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 82 \\ - 59 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 97 \\ - 78 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 65 \\ - 28 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 78 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 53 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 91 \\ - 46 \\ \hline \end{array}$$

Class Activity
Vocabulary

tally chart

line plot

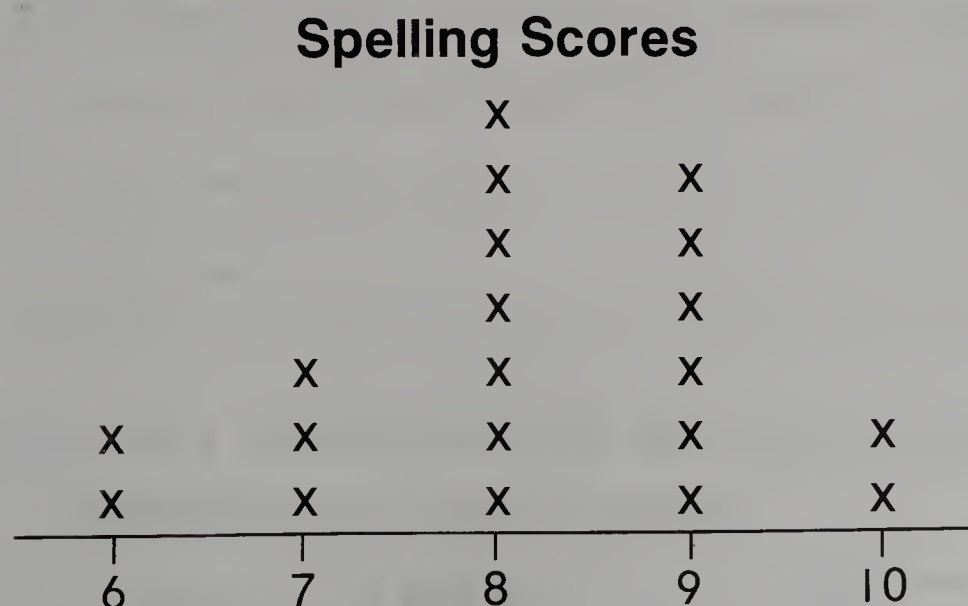
Five friends wanted to see what spelling score they made most often.

Spelling Scores				
Elizabeth	10	8	8	9
Wayne	8	9	6	8
Benjamin	9	7	9	10
Sophia	7	6	8	8
Alyce	9	7	9	8

They made a **tally chart** of the scores.

Score	Tally
10	II
9	IIII I
8	IIII II
7	III
6	II

Then they made a **line plot**. In a line plot, each piece of data is shown with an x.



Why is it easy to see the score that was made most often in the line plot?

Vocabulary

tally chart

line plot

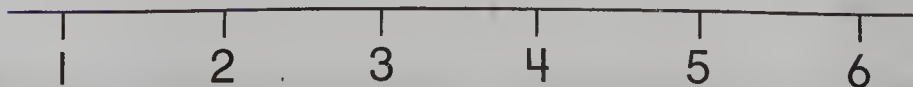
- Take turns. Roll the number cube 20 times in all.
Record the number rolled each time on the **tally chart**.

Number Rolled

Number	Tally
1	
2	
3	
4	
5	
6	

- Make a **line plot**.
Use the data from your tally chart.

Number Rolled



Class Activity
Vocabulary**multiplication**

I have 5 pairs of socks. How many socks do I have all together?

1 2



3 4



5 6



7 8



9 10



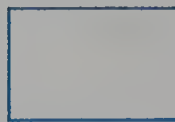
$5 \times 2 = \underline{10}$

$2 + 2 + 2 + 2 + 2 = \underline{10}$

Complete the addition and **multiplication** equation for each story. Make a math drawing to help you solve the problem.

1. I have 3 dogs. Each dog has 4 bones. How many bones are there?

$4 + 4 + 4 = \underline{\hspace{2cm}}$

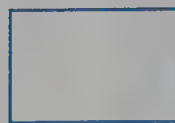


_____ label

$3 \times 4 = \underline{\hspace{2cm}}$

2. I have 5 vases. There are 2 flowers in each vase. How many flowers are there?

$2 + 2 + 2 + 2 + 2 = \underline{\hspace{2cm}}$

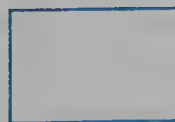


_____ label

$5 \times 2 = \underline{\hspace{2cm}}$

3. I eat 4 vegetables every day. How many vegetables do I eat in 5 days?

$4 + 4 + 4 + 4 + 4 = \underline{\hspace{2cm}}$



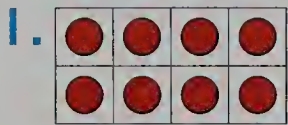
_____ label

$5 \times 4 = \underline{\hspace{2cm}}$

Class Activity
Vocabulary

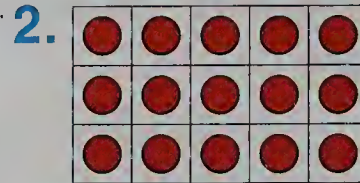
array

Look at each **array**. Write the numbers.



_____ × _____ or

_____ × _____



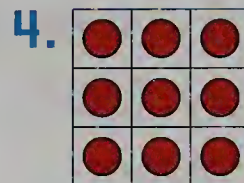
_____ × _____ or

_____ × _____



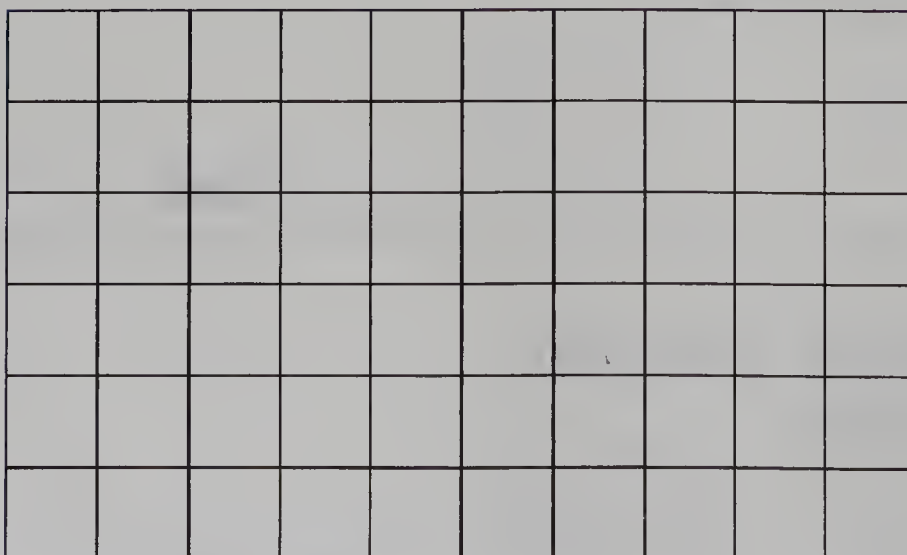
_____ × _____ or

_____ × _____



_____ × _____

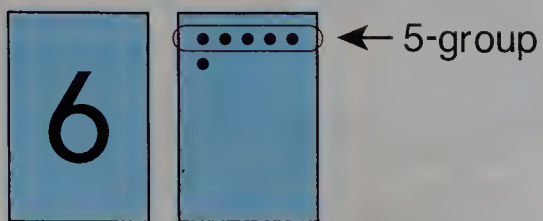
5. Draw your own array. Label your array 2 ways.



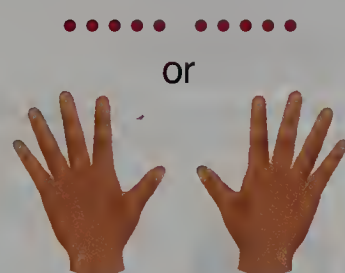
_____ × _____
 _____ × _____

Glossary

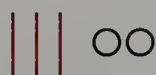
5-group



10-group



10-stick



There are 3 **10-sticks** in 32.

A

above



The sun is **above** the cloud.

add

$$\begin{array}{c} \bullet \bullet \bullet \\ 3 \end{array} + \begin{array}{c} \bullet \bullet \\ 2 \end{array} = 5$$

addend

$$\begin{array}{c} 5 + 4 = 9 \\ \uparrow \quad \uparrow \\ \text{addends} \end{array}$$

addition story problem

There are 5 ducks.
Then 3 more come.
How many ducks are there now?

after

98, **99**
99 is **after** 98.

apart



Amy pulls her hands **apart**.

Glossary (Continued)

B

backward



Sahil is walking **backward**.

before

31, 32

31 is **before** 32.

behind



Sara

Alex

Alex is **behind** Sara.

below



The sun is **below** the cloud.

between



Sam

Nadia

Lilly

Nadia is **between** Sam and Lilly.

7, 8, 9

8 is **between** 7 and 9.

break-apart

You can **break apart** the number 4.



1 and 3



2 and 2



3 and 1

1 and 3, 2 and 2, and 3 and 1 are **break-aparts** of 4.

C

calendar

March						
February						
January						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

capacity



Capacity is how much a container holds. This container holds 1 quart of milk.

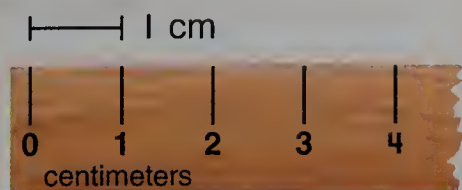
cent



1¢

A penny is worth 1 **cent**.

centimeter



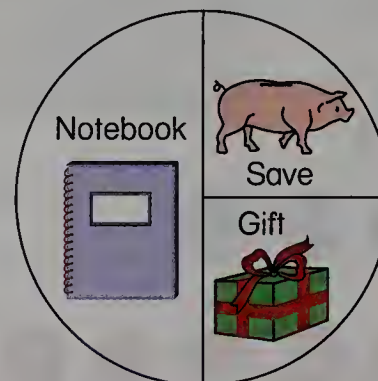
A **centimeter** cube is 1 centimeter long.

circle



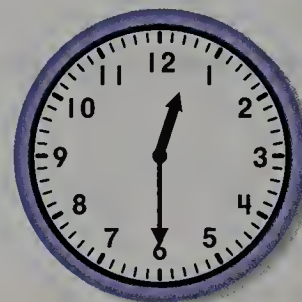
circle graph

How I Spent 1 Dollar



clock

analog
clock



digital
clock



coin



Quarters, dimes, nickels, and pennies are **coins**.

Glossary (Continued)

column

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

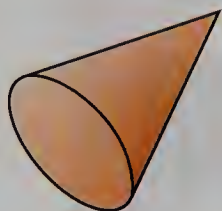
compare



There are more red circles than blue circles.

There are fewer blue circles than red circles.

cone



congruent



These shapes are **congruent**. They are the same size and shape.

corner



cost



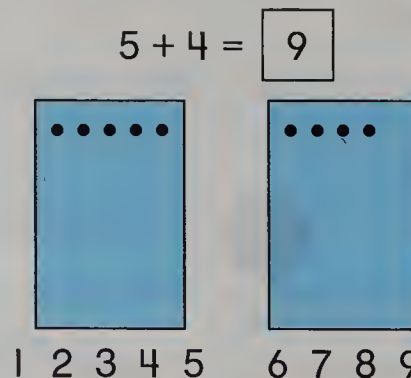
What is the **cost** of the teddy bear?

The teddy bear **costs** 4¢.

count



count all



count on

$$5 + 4 = 9$$

$$5 + 4 = 9$$

$$9 - 5 = 4$$

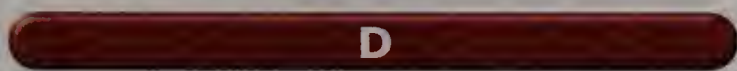
5 6 7 8 9

Count on from 5 to get the answer.

cube



cylinder



day

November						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

November has 30 **days**.

decade numbers

10, 20, 30, 40, 50, 60, 70, 80, 90

difference

$$11 - 3 = 8$$

dime



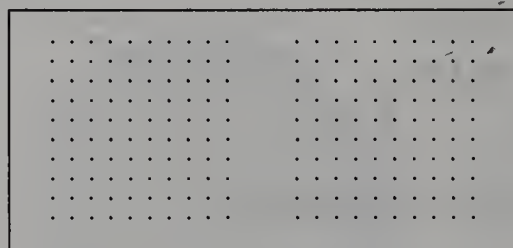
10¢ or 10 cents

dollar



1 **dollar** or 100 cents

Dot Array



doubles



$$4 + 4 = 8$$

Both addends (or partners)
are the same.

down



Put your arm **down**.

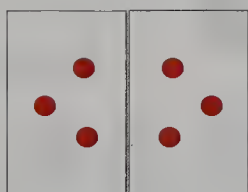
Glossary (Continued)

E

equal partners



equal shares



equal shares of 6

equal to (=)

$$4 + 4 = 8$$

4 plus 4 is **equal to** 8.

equation

Examples:

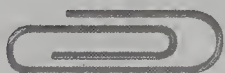
$$4 + 3 = 7$$

$$7 = 4 + 3$$

$$9 - 5 = 4$$

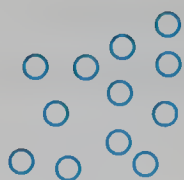
$$4 = 9 - 5$$

estimate



You can **estimate** the length of an object.

I estimate the paper clip is about 1 inch long.

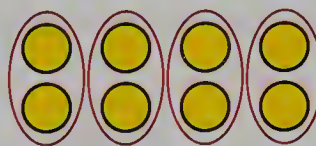


about 10

You can estimate the number of objects in a set.

even number

A number is even if you can make groups of 2 and have none left over.



8 is an **even number**.

F

fewer



There are **fewer**  than .

fewest

Eggs Laid This Month

	Clucker	
	Vanilla	
	Daisy	

Clucker laid the **fewest** eggs.

flip

You can **flip** a figure over a horizontal line.



You can **flip** a figure over a vertical line.

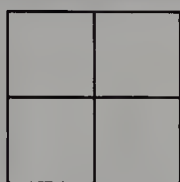


forward

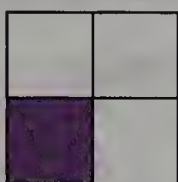


Sahil is walking **forward**.

fraction



4 equal parts



$\frac{1}{4}$

is 1 out of 4 equal parts.

The **fraction** of the square that is shaded is $\frac{1}{4}$.

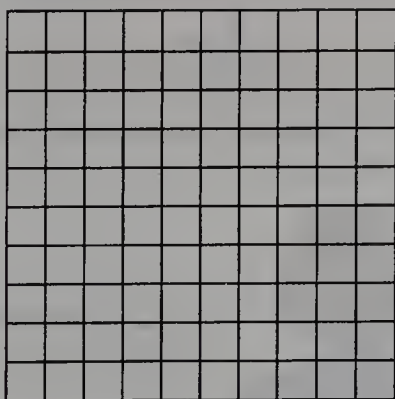
G

greater than

1, 2, **3**, 4, 5, 6, **7**

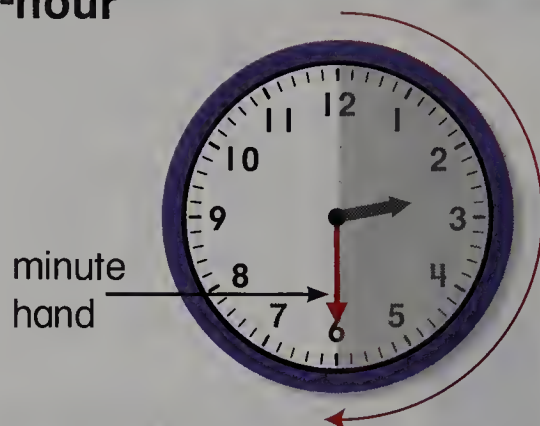
7 is **greater than** 3.

grid



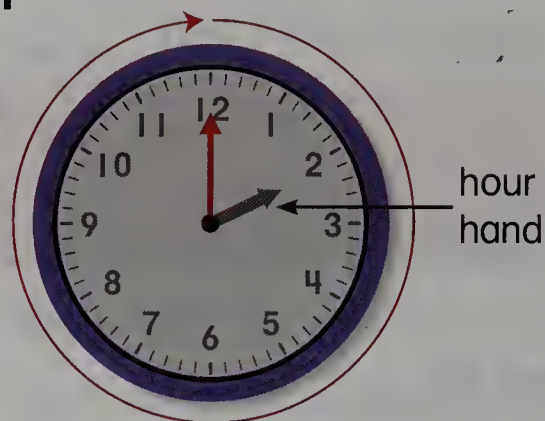
H

half-hour



A **half-hour** is 30 minutes.

hour

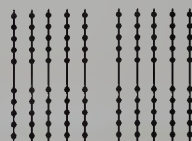


An **hour** is 60 minutes.

hundred

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

or



Glossary (Continued)

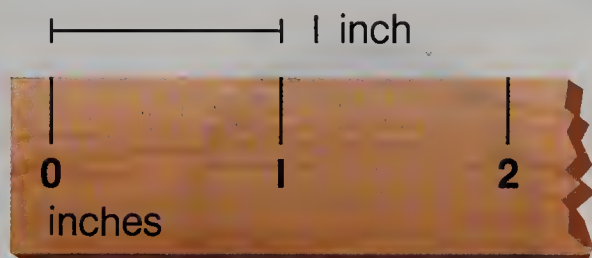
I

in, inside



Evan's hand is **inside** the box.

inch



in front of



Alex

Sara

Sara is **in front of** Alex.

J

just after

5, **6**, 7

6 is **just after** 5.

just before

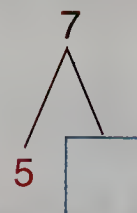
4, **5**, 6

5 is **just before** 6.

K

known partner

$$5 + \square = 7$$



5 is the **known partner**.

L

label

We see 9 fish.

5 are big. The others are small.

How many fish are small?

4 fish
label

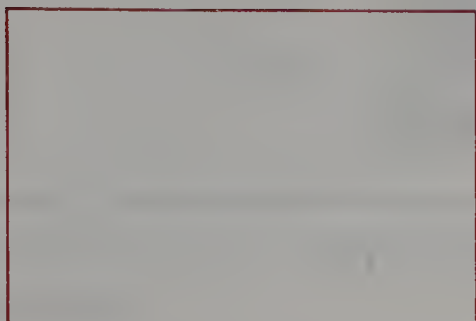
left



Cecilia is waving her **left** hand.

length

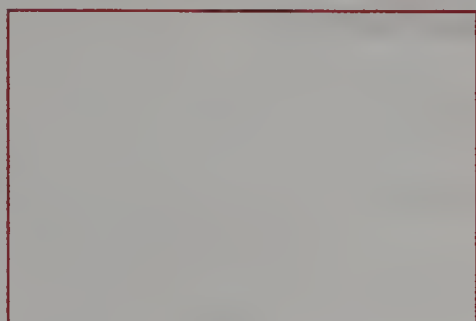
length



width

or

width



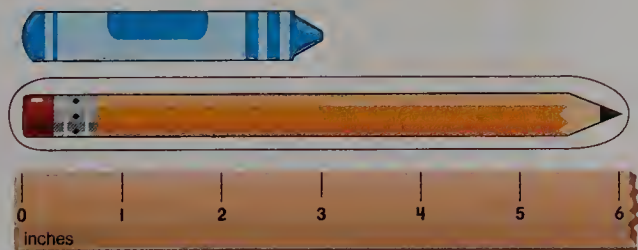
length

less than

1, 2, 3, 4, 5, 6, 7

3 is less than 7.

longer



The pencil is longer than the crayon.

M

Make a Ten

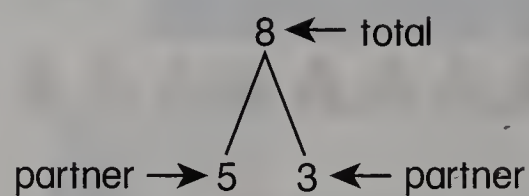
$$8 + 6 = \square$$

8 ○ ○ ○ ○ ○ ○ ○

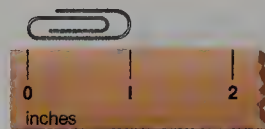
$$10 + 4 = 14,$$

$$\text{So } 8 + 6 = 14.$$

Math Mountain



measure



Use the ruler to **measure** the length of the paper clip.

minus

$$8 - 3 = 5$$

$$\begin{array}{r} 8 \\ -3 \\ \hline 5 \end{array}$$

8 minus 3 equals 5.

Glossary (Continued)

month

June						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

June is the sixth **month**.

There are twelve months in a year.

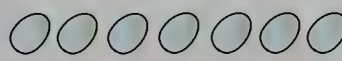
more



There are **more**  than .

most

Eggs Laid This Month

	Clucker	
	Vanilla	
	Daisy	

Vanilla laid the **most** eggs.

N

next to



Sara

Alex

Sara is **next to** Alex.

nickel



5¢ or 5 cents

not equal to ($\neq$)

$$6 \neq 8$$

6 is **not equal to** 8.

number sentence

$$4 + 3 = 7$$

or

$$7 = 4 + 3$$

$$9 - 5 = 4$$

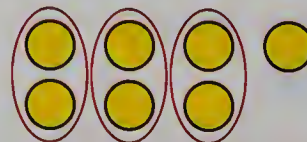
or

$$4 = 9 - 5$$

O

odd number

A number is odd if you can make groups of 2 and have one left over.



7 is an **odd number**.

one fourth

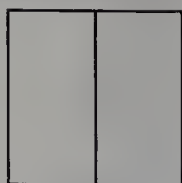


1 whole



$\frac{1}{4}$

one half



1 whole



$\frac{1}{2}$

one third

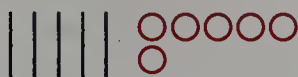


1 whole



$\frac{1}{3}$

ones



ones

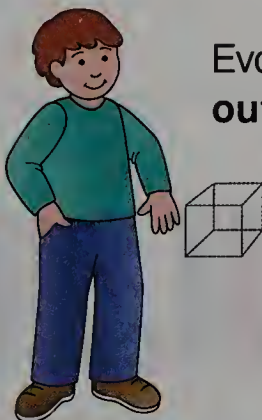
56 has 6 **ones**.

ordinal numbers

first, second, third, fourth, fifth
sixth, seventh, eighth, ninth, tenth

Ordinal numbers tell the position of things in order.

out, outside



Evan's hand is
outside the box.

oval



P

pair



a **pair** of counters



a **pair** of shoes

partner

$$5 = 2 + 3$$

2 and 3 are **partners** of 5.

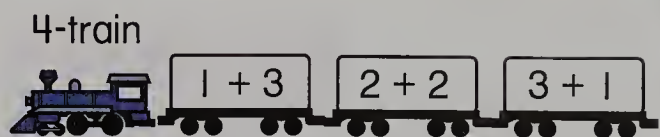
2 and 3 are **5-partners**.

partner house

9
5 + 4
6 + 3
3 + 6
4 + 5
7 + 2
8 + 1
2 + 7
1 + 8

Glossary (Continued)

partner train



pattern

2, 4, 6, 8, 10, 12



These are **patterns**.

penny



1¢ or 1 cent

pentagons



A **pentagon** has 5 sides.

picture graph

Flowers	      
Vases	        

plus

$$\begin{array}{r} 3 + 2 = 5 \\ 3 \\ + 2 \\ \hline 5 \end{array}$$

3 **plus** 2 equals 5.

Q

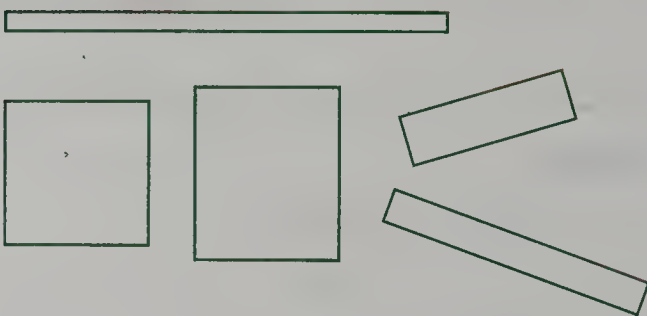
quarter



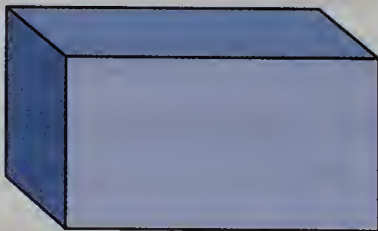
25¢ or 25 cents

R

rectangles



rectangular prism



related equations

$$\begin{array}{l} 5 + 3 = 8 \\ 50 + 30 = 80 \end{array}$$

repeating pattern



right



Cecilia is waving her **right** hand.

row

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

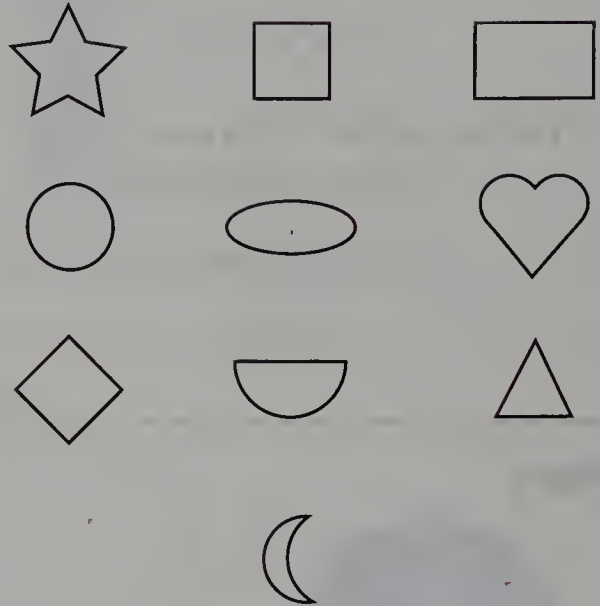
ruler

A **ruler** is used to measure length.

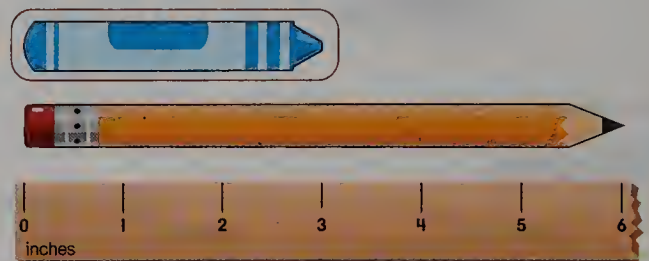


S

shapes

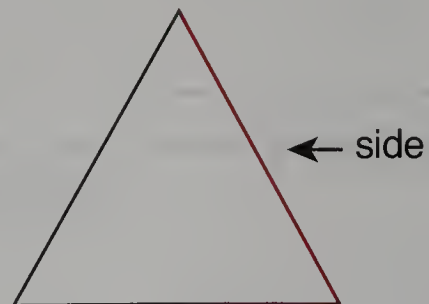


shorter



The crayon is **shorter** than the pencil.

side



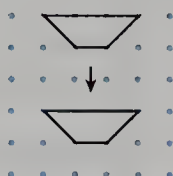
Glossary (Continued)

slide

You can **slide** a figure right or left along a straight line.



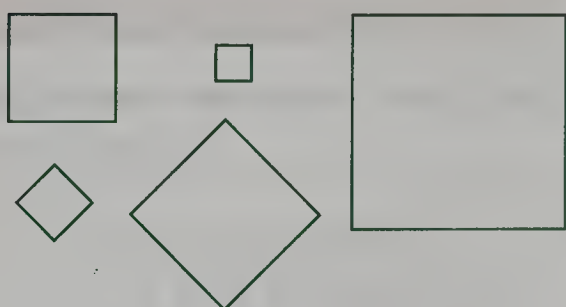
You can **slide** a figure up or down along a straight line.



sphere



squares



sticks and circles

1 ○

11 | ○

21 || ○

31 ||| ○

subtract

$$8 - 3 = 5$$



subtraction story problem

8 flies are on a log.

6 are eaten by a frog.

How many flies are left?

sum

$$4 + 3 = 7$$

↑
sum →

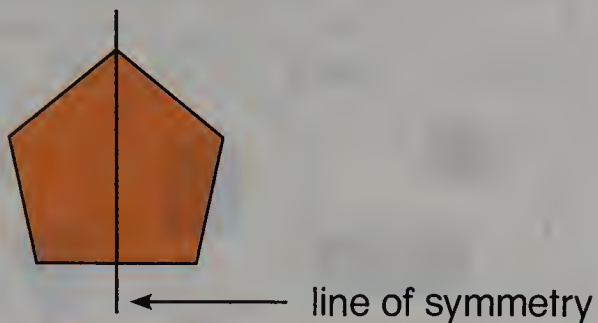
4
+ 3
—
7

switch the partners



symmetry

A shape has **symmetry** if it can be folded along a line so that the two halves match exactly.



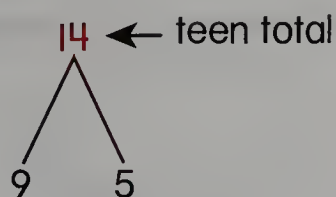
table

Instruments	Number
Horns	4
Violins	5
Drums	3
Guitars	5

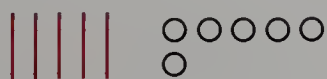
teen number

11 12 13 14 15 16 17 18 19
teen numbers

teen total



tens



tens

56 has 5 **tens**.

together

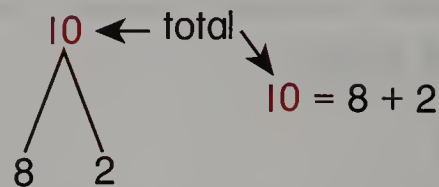


Put your hands **together**.

total

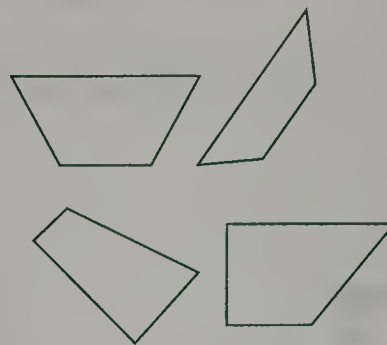
$$4 + 3 = 7$$

total → 7

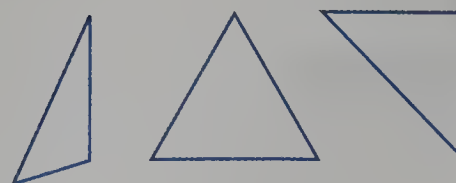


$$10 = 8 + 2$$

trapezoids



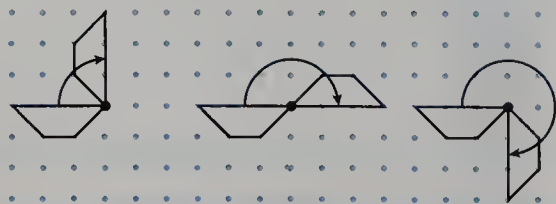
triangles



Glossary (Continued)

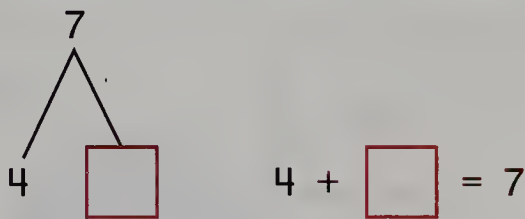
turn

You can **turn** a shape around a point.

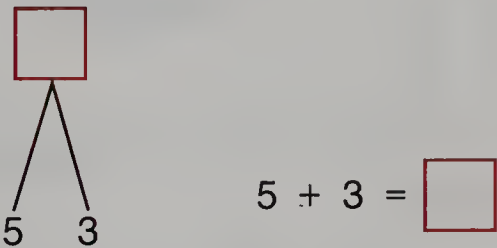


U

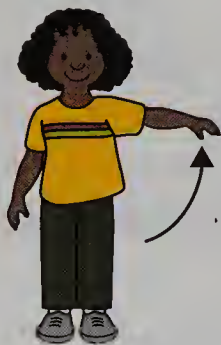
unknown partner



unknown total



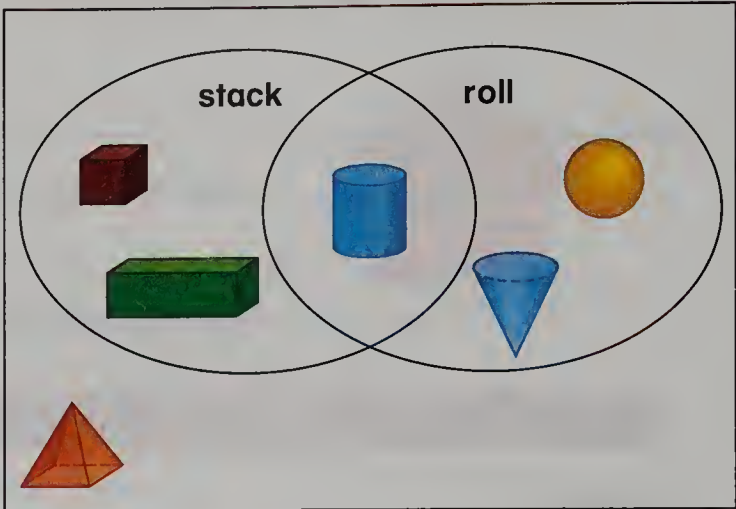
up



Put your arm **up**.

V

Venn diagram

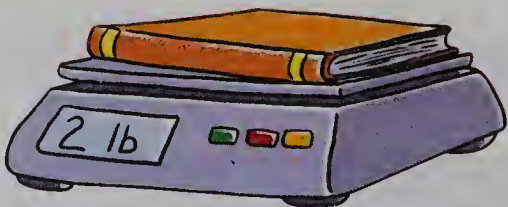


vertical form

$$\begin{array}{r} 6 \\ + 3 \\ \hline 9 \end{array}$$

W

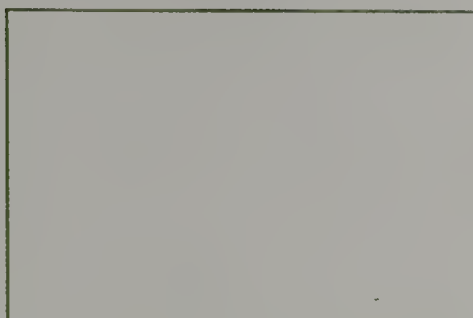
weight



The **weight** of this book is 2 pounds.

width

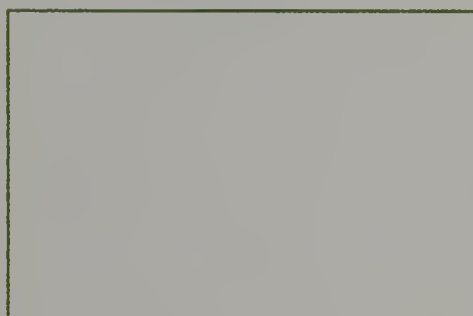
length



width

or

width



length

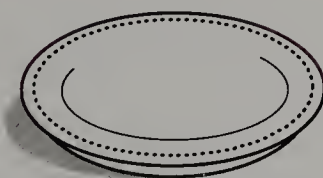
word name

12

twelve ← word name



zero



There are **zero** apples on the plate.

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